24038

National Library of Canada | Bibliothèque nationale du Canada

CANADIAN THESES ON MICROFICHE | THÈSES CANADIENNES SUR MICROFICHE

NAME OF AUTHOR/NOM DE L'AUTEUR Walter MARTIN GOOS

TITLE OF THESIS/TITRE DE LA THÈSE Differential characteristics of Drug using and Non-drug using (Church related) youths

UNIVERSITY/UNIVERSITÉ University of Alberta

DEGREE FOR WHICH THESIS WAS PRESENTED/ GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE M. Ed.

YEAR THIS DEGREE CONFERRED/ANNÉE D'OBTENTION DE CE GRADE 1975

NAME OF SUPERVISOR/NOM DU DIRECTEUR DE THÈSE Ram K. Gupta

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

DATED/DATÉ Apr. 23, 1975 SIGNED/SIGNÉ Walter M. Goos

PERMANENT ADDRESS/RÉSIDENCE FIXE 1283 Millbourne Rd. E.
Edmonton, Alta.

NL-91 (3-74)

THE UNIVERSITY OF ALBERTA

DIFFERENTIAL CHARACTERISTICS OF DRUG USING AND NON-DRUG USING (CHURCH RELATED) YOUTHS

BY

WALTER MARTIN GOOS

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

IN

COUNSELLING AND SCHOOL PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

SPRING, 1975

© Walter Martin Goos 1975

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled DIFFERENTIAL CHARACTERISTICS OF DRUG USING AND NON-DRUG USING (CHURCH RELATED) YOUTHS submitted by Walter Martin Goos in partial fulfilment of the requirements for the degree of Master of Education in Counselling and School Psychology.

Ram K. Gupta
Supervisor

Date April 9, 1975

ACKNOWLEDGEMENTS

To Dr. Ram Gupta for his guidance and encouragement throughout the development of this thesis.

To Dr. Peggy Brown and Dr. John Paterson for serving as members of the committee.

To Colin Park for his unceasing efforts in the analysis of the data.

To Dr. Merton Strommen and his associates for the release of their research data.

To Joan Fraser for her help in typing the manuscript.

To my wife, Marion, for her constant support and encouragement when the clouds loomed large and the horizon seemed bleak.

To my son, Stephen, whose coming into our home hastened the completion of this task.

ABSTRACT

This study was concerned with assessing the differential characteristics of drug using and non-drug using youths who were also church related.

A sample of 124 youths who were drug users was chosen from a larger population of 7050 youth who were members of the major religious denominations. A contrasting group of 121 non-users was then chosen from the same parent population. The subjects had been surveyed by means of two booklets containing 420 items which measured the concerns, values, beliefs and perceptions of the respondents, and also gave some biographical data.

From these individual items, 25 scales containing 280 items, were developed. The two groups were compared and contrasted on these scales and also selected biographical data.

The results, as measured by this instrument, suggested that drug users expressed higher degrees of concern about family pressures, such as separation, divorce, unemployment, illness and about parent-child relationships. They evidenced less concern about societal customs and expectations, and were more positive about change in society. They attached less value on attitudes of moral responsibility and social involvement than did non-users.

Drug users were found to be less involved in school and church activities and they expressed less interest in receiving

help from either institution than did non-users. They were more often absent from school, perceived themselves as receiving lower grades, and were more often enrolled in a private or parochial school.

The beliefs of drug users could be typified as being more agnostic than non-users. They were also less observant of religious practices than users were.

In comparison to non-users, users perceived their families, their youth group, and their church in more negative terms. As well, they had a more pessimistic outlook on life, and more often considered suicide.

Drug users were found to be more often male, and had a higher income than non-users did.

An hypothesized anomolous situation between drug use and church affiliation was not found. Drug users, who are church affiliated, and drug users studied without respect to church affiliation, have similar values, attitudes and beliefs. One must, therefore, conclude that religious affiliation is not a discriminating variable between drug users.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
	The Problem and Its Significance	3
II.	REVIEW OF RELATED LITERATURE	6
	Psychological Variables	8
	Sociological and Biographical Variables	11
	Attitudinal Variables	15
	Summary and Criticisms	18
III.	INSTRUMENT, POPULATION, SAMPLES AND PROCEDURES	19
	The Instrument	19
	Development of Scales	20
	Description of Scales	21
	Populations and Samples	27
	Population	27
	Obtaining Contrasting Groups	27
	Analyses	30
	General Hypotheses	32
	Specific Hypothesis	33
IV.	RESULTS AND INTERPRETATIONS	34
	Concern Scales	34
	Scale 1, Family Unity	34
	Scale 2, Parental Understanding	36
	Scale 3, Family Pressures	38
	Scale 4, Life Partner	40

CHAPTER PAGE

IV. Scale 5, Lack of Self Confidence 44
Scale 6, Academic Problems 44
Scale 7, Personal Faults 46
Scale 8, Classroom Relationships 49
Scale 9, National Issues 49
Scale 10, God Relationship 52
Summary 54

Belief and Value Scales 56

Scale 11, Interest in Help 56
Scale 12, Maturity of Values 58
Scale 13, Orientation for Change 60
Scale 14, Moral Responsibility 64
Scale 15, Meaningful Life 64
Scale 16, Religious Participation 66
Scale 17, Social Action 68
Scale 18, Self Regard 70
Scale 19, Human Relations 70
Scale 20, God Awareness 73
Scale 21, Biblical Concepts 75
Summary 77

Perception Scales 78

Scale 22, Youth Group Vitality 78
Scale 23, Adult Caring 80
Scale 24, Family Social Concerns 82
Summary 84

Validity Scale 85

Scale 25, Frankness 85

Summary 87

Non Scale Items 89

Item 184 Absence from home in the evenings .. 89
Item 182 Days absent from school per month .. 90
Item 189 Comparison of school grades 91
Item 193 Type of school attended 92
Item 188 Average weekly income 94
Items 3, 157, 413 Outlook on life 97
Religious Affiliation 98
Summary 100

V. SUMMARY, FINDINGS, IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH 101

CHAPTER PAGE

V. Summary Findings 101

Implications for Counselling 106

Suggestions for Further Research 107

BIBLIOGRAPHY 109

APPENDIX A. Reciprocal Averages Method 115

LIST OF TABLES

Table		Page
1	The Ecumenical Sample Classified by Denominational Affiliation.....	28
2	Criteria For Selecting Drug Users.....	29
3	Results Obtained For Scale 1 - Family Unity.....	35
4	Results Obtained For Scale 2 - Parental Understanding.....	37
5	Results Obtained For Scale 3 - Family Pressures.....	39
6	Results Obtained For Scale 4 - Life Partner.....	41
7	Results Obtained For Scale 5 - Lack of Self Confidence.....	43
8	Results Obtained For Scale 6 - Academic Problems.....	45
9	Results Obtained For Scale 7 - Personal Faults...	47
10	Results Obtained For Scale 8 - Classroom Relationships.....	48
11	Results Obtained For Scale 9 - National Issues...	51
12	Results Obtained For Scale 10 - God Relationship.....	53
13	Results Obtained For Scale 11 - Interest in Help.....	57
14	Results Obtained For Scale 12 - Maturity of Values.....	59
15	Results Obtained For Scale 13 - Orientation For Change.....	61
16	Results Obtained For Scale 14 - Moral Responsibility.....	63
17	Results Obtained For Scale 15 - Meaningful Life..	65

Table		Page
18	Results Obtained For Scale 16 - Religious Participation	67
19	Results Obtained For Scale 17 - Social Action	69
20	Results Obtained For Scale 18 - Self Regard	71
21	Results Obtained For Scale 19 - Human Relations	72
22	Results Obtained For Scale 20 - God Awareness	74
23	Results Obtained For Scale 21 - Biblical Concepts	76
24	Results Obtained For Scale 22 - Youth Group Vitality	79
25	Results Obtained For Scale 23 - Adult Caring	81
26	Results Obtained For Scale 24 - Family Social Concerns	83
27	Results Obtained For Scale 25 - Frankness	86
28	Evenings Per Week Absent From Home: Classified By Users and Non-Users	89
29	Days Absent From School Per Month: Classified By Users and Non-Users	90
30	A Comparison of School Grades Perceived By Users and Non-Users of Drugs	91
31	Type of School Attended By Users and Non-Users of Drugs	92
32	Weekly Income of Users and Non-Users of Drugs	94
33	Users and Non-Users of Drugs Classified by Sex	96
34	Religious Affiliation of Church Youths Population and Also That of Users and Non-Users of Drugs	98

CHAPTER I

INTRODUCTION

The use of drugs for medicinal, social, religious and other purposes has been chronicled throughout recorded history. Thousands of years ago, high caste Brahmins in India used "soma" to induce visionary experiences, the Chinese used marijuana for medicinal purposes and the North American plains Indians used peyote in religious rituals. Even in modern times, in scores of countries, primitive folk medicine is dependent upon drugs found in nature. What is novel for our day and culture, however, is the production of synthetic drugs on a large scale, thereby increasing their availability and use.

It is reported that in North America, there are about 10,000 products presently available for prescription. (Edmonton Journal, June 18, 1974). Dupont's slogan "Better things for better living through chemistry" (Rozak 1969, p. 177) seems to have been liberally adopted by our society, albeit in a sense other than what was first intended. Synthetic drugs are an integral part of daily experience for many. Aspirin is ingested at the rate of forty tons daily in the United States (Szasz 1971, p. 54). The annual bill for prescribed drugs is estimated to be ten billion dollars (Szasz 1971). Prescribed sleeping pills kill more people through accidental and deliberate overdose than any

of the other drugs (Cluskey, 1972, p. 174). A survey of students in selected junior and senior high schools of rural Alberta reported that 72.9% of the students surveyed used alcohol (Bakal, 1974). There is no denying the ubiquity of drugs in North American culture.

In spite of this drug orientation, discourse concerning drug use is now more placid, not because drug use has lessened, rather the social import accorded to drug usage by the society has altered to a degree. Drug use among youths appears to have stabilized (Smart and Fejer, 1974), and with this stabilization the fear of a spreading "drug culture" has lessened. It is apparent that the "drug problem" was not so much a pharmacological concern as it was a social problem. In retrospect, it would appear that the issue was not drug use, even though it was heralded as such. Thus it would appear that management of drugs is a contextual matter, deeply ingrained in the society's values, mores, customs, social and political structures. How it manages drugs which are available, the use and methods of control: all relate to a multitude of social expectations. Pharmacological effects appear to be of secondary concerns to the society; the social significance attached to drug usage seems to be of paramount importance.

THE PROBLEM AND ITS SIGNIFICANCE

If the meaning of drug use is contextual, dependent upon profound and varied influences, then it could be postulated that the differences between the lifestyles of users and non-users need not be a causal relationship. It could be temporal, consequent to social attitudes directed toward the user as a result of his drug use.

This research is concerned with the "hang loose ethic" as it relates to church affiliated youth who are also drug users. Simmons and Winograd (1966) contended that drug users were typified by the "hang loose ethic". This ethic was described, in part, as follows:

> It repudiates, or at least questions, such cornerstones of conventional society as Christianity; my country right or wrong; the sanctity of marriage and premarital chastity; civil disobedience; the accumulation of wealth; the right, even competence of parents, the schools and the government to head and make decisions for everyone--in sum, the establishment. (p. 12)

In general, they describe the person with a "hang loose ethic" as being against restriction and categorization. He is one who adhers to liberal beliefs, is spontaneous, tolerant and emphasizes values of humaneness and liberality. The authors imply that the "hang loose ethic" emphasizes a minimum of structures and a maximum of personal freedom.

If drug users are typified by an anti-establishment attitude, an anomolous situation occurs when one who is a church member also frequently uses drugs.

The issue, clearly stated, is whether an individual who adhers to an establishment, in this case, the church, and at the same time is a drug user, has the same values as typified by the "hang loose ethic" or not. Stated from another vantage point, do the generalizations alleged to be true about drug users apply equally well to church related youth who are also drug users?

It is generally assumed that an anomolous situation has occurred when a drug user is affiliated to a traditionally religious establishment of our culture. Therefore, it is instructive to examine the nature of this apparently incongruous relationship. One could question whether drug users, who are also members of a church, use drugs for reasons other than those descriptive of members in the general population who are not members. Alternately, one can question whether there are differences between those young people who use drugs for non-medical purposes and those who do not, even though both have affiliation to a religious denomination. "Differences", when used in this context are understood to entail psychological, biographical and demographical variables. This research will attempt to ascertain what, if any, differences do exist between users and non-users, both the groups having been selected from church memberships. Subsequently, these findings will be related to those already reported in the existing research literature.

The term "drug user" has specific usage in the research which was conducted. "User" was defined as one who used alcohol frequently (at least once a week), who got "high" on alcohol, and who frequently used marijuana, LSD, Speed, heroin or other narcotics. Thus a drug user was one who used both alcohol and "street drugs".

This specific definition of drug user could not be employed in the review of the literature (Chapter II), however, in that chapter, the term was used flexibly. Its use was specifically tied to the research quoted. Thus, if research concerned attitude of alcohol users, then the term "drug user" connoted the alcohol user. Hence, the use of the term in Chapter II is contextual.

CHAPTER II

REVIEW OF RELATED LITERATURE

Research into the non-medical use of drugs has been conducted from a variety of viewpoints including psychological, sociological and medical vantages. The medical studies, though of great importance, are of tangential relevance to this research. The primary interest here lies in an assessment of values, attitudes and concerns which differentiate persons, using drugs non-medically, from the non-users. Therefore, medical studies are not extensively reviewed here.

Drugs potentiate experience; they do not create it. G. H. Mead (1934) has posited that meanings arise in the course of social interaction, subsequent to the value which participants attribute to the objects in question. Hence, meaning is imputed to objects through concensus. In a similar vein Becker (1967) opined that the effect and importance of a drug are determined by the existence of socially created and maintained interpretations in that particular society.

Drug use interpreted in this social context was destined to engender conflict. The majority culture has primarily interpreted drug use in two ways, both of which emphasize the status

quo. On the one hand, emphasis is on the medical model in which the organism, when exhibiting signs of disease, is given drugs, thus inhibiting further deterioration, with the eventual goal being a return to the organism's former state or status quo. On the other hand, drugs have been used as a social "lubricant", in which case their purpose is to lessen inhibitions and thereby enhance social intercourse. The social customs still remain, however, with less authority for the moment.

In contradistinction, drug use in the counter-culture has been an integral part of an alternative lifestyle which has at its center a criticism and a rejection of some of the long-standing values and customs of the larger society. The goal is novel experience beyond the present limitations, in essence, the hallucinogenic and psychedelic experience. The point of division does not appear to be drug use, as both majority and counter-culture employ drugs extensively, but expected experience subsequent and consequent to drug use.

It would, therefore, appear that values, and not 'use' is the issue in this context. Hence the interest of this research in the values, concerns and attitudes of drug users as compared to non-users.

The literature related to drug users and their values is rather extensive. However, there has not been any substantial

research concerning the relationship of church related youth and drug use. Hence the literature specific to the issue is lacking. As general background for this research, the literature has been reviewed from three viewpoints; namely (i) psychological variables, (ii) sociological and demographic variables, and (iii) attitudinal variables.

PSYCHOLOGICAL VARIABLES

Drug users have been described as non-conforming, impulsive and overconcerned with personal pleasure (Hogan, 1970). Chein (1964), in his study of addicts in New York, concluded that habitual drug users had weak ego structure and showed "defective" superego functioning (p. 101). Cockett (1971), in his study of young drug offenders, found that users had a poorly integrated personality and exhibited signs of hypochondriasis. Fort (1954), while treating young male drug addicts, came to the conclusion that their character was oral and narcissistic. He also noted that they had strong ambivalence towards mothers and other female figures. Nyswander (1956), in her treatment of addicts, observed a "mother fixation". She stated that a very close and overprotective relationship made the addict extremely sensitive to maternal suffering.

Psychological inventories have been used in identification of psychological characteristics of drug users. Heller and Mordhoff (1972), who tested non-addicted drug abusers, involved in a non-residential rehabilitation program, found that users had high scores on the Pd, Sc, D and Pt scales of the Minnesota

Multiphasic Personality Inventory (MMPI). Gilbert and Lombardi (1967), also using the MMPI, concluded that drug users had common deviation as exhibited through high Pd values. Smart and Fejer (1969) found that LSD users had peak scores on the Sc scale. These inconclusive results could be attributed to the fact that each of the above studies involved different kinds of drug users. The evidence does suggest, however, that personality characteristics of drug users are somewhat different from those of non-users.

Sinha's (1972) research with alcoholics and drug abusers found that the latter scored higher on external values on the Internal/external Control of the Reinforcement Scale developed by Rotter (p. 23). His research revealed that 72% of the alcoholics were externals whereas 79% of the non-drinkers were internals. The highest median scores on the I-E scale were obtained by the drug addicts (p. 34). He thus concluded that drug users were more externally oriented, meaning that they did not see their behavior as effective in determining their lives.

Cattell's Sixteen Personality Factor Questionnaire was used by Green (1971) to study the personality traits of adolescent drug users. He found users to be more dominant, more reckless and having less ego strength. Carney's (1972) study of Dublin youth, using the same instrument, concluded that users constituted a personality disorder group.

Pugh's (1972) research with alcoholics reported higher levels of frustration and poor interpersonal skills amongst his subjects. Smart et al (1972) found needs of affiliation and affection as

significant needs of speed users. Boggs and Hughes (1973) similarily reported marijuana user's needs for personal intimacy and self understanding as being high. On the basis of massive data on drug users, Blum (1969a) concluded that they were "lacking genuine people to people warmth...superficially sympathetic and unable to withstand tension" (p. 102).

Wozny (1971), while studying students in secondary and post secondary institutions in Edmonton, Alberta, found that marijuana users tended towards necrophilous as measured on the Life Orientation Test. This test, developed by Fox (1969), defined necrophilous as being more simple, more closeminded, more authoritarian, more socially acquiescent and having uncritical judgment. Wozny's findings would, in part, appear to contradict those of Hogan (1970), Hughes (1971), Simmons and Winograd (1966) all of whom had reported findings related to broader interests as well as more liberal attitudes of users. Wozny's findings may be an artifact of the instrument used. Validity studies of the instrument have not been extensive, hence one might treat the results with some skepticism.

In summary, one could conclude that the psychological variables characterizing drug users are quite diverse. They have been found to be narcissistic, introspective, and inner directed. Their personal relationships were found to be deficient; they had high needs for intimacy and affection and they experienced ambivalence towards maternal figures. Users were found to exhibit a poorly integrated personality and evidenced some degree of

deviance on measures of personality. They were found to be externally oriented, and also had weak ego structures and poorly developed superego functioning.

SOCIOLOGICAL AND BIOGRAPHICAL VARIABLES

Research data related to drug abuse is quite extensive. The more recent research, related particularly to attitudes, values and some biographical data, has been reviewed for this research. Some of the relevant findings are given below.

Johnson (1972) stated that the four variables of sex, religion, politics and cigarette smoking were good predictors of marijuana use. Of the non-religious, politically left, cigarette smoking men, he found that 97% had tried marijuana and 62% were regular smokers. In contradistinction, of the religious, politically moderate, non-smoking women, only 4% had tried marijuana or used it regularly. Others have also found that religious affiliation is negatively related to the use of marijuana (Hughes 1971; Blum 1969a; Gormely 1970; Simmons and Winograd 1966; Suchman 1968)—to mention a few.

There is, however, conflicting evidence regarding particular religious affiliation and drug use. Suchman (1968) reported a lower percentage of Jewish students using drugs, in comparison to protestant or catholic students. On the other hand, Blum (1969a), Smart and Fejer (1969), reported that there was a higher percentage of Jewish students using drugs than either protestant or catholic. Irrespective of this conflicting evidence, in all the studies

reviewed, persons with no religious affiliation were found to comprize the largest percentage of users.

The researches of Wozny (1971), Michigan School of Public Health (1971), have shown the positive correlation of tobacco use and street drugs. In addition, research has shown a relationship between parental use of tobacco, tranquilizers or sedatives, and their children's non-medical use of drugs (Louria 1972; Smart and Cox 1972; Olson and Sustrik 1972). This parental use of drugs as related to children's use is only part of a substantial body of evidence between family variables and drug use.

A survey of British Columbia students (1970) reported a significant relationship between failed or frustrated needs of parental affection and drug use. Smart, Fejer and White (1970), LeDain (1973), Blum (1972), Gormely (1970) have all found a relationship between a child's drug use and familial discord. In the same vein, studies have generally reported family solidarity as being negatively correlated to drug use. In explication of this matter, Blum (1972) suggested the following variables as crucial: family income; parental uncertainty; parent's political preferences; religious affiliations; mother's and father's use of alcohol; mother's acceptance of youthful expressions and rebelliousness (p. 183). Family income, parental uncertainty, parental use of alcohol were all positively correlated to drug use, whereas maternal acceptance of rebelliousness, conservative political leanings, and significant religious affiliation were all negatively correlated.

Carney (1972) reported a high proportion of overtly "abnormal families" in his sample of drug users (p. 205). In 22% of the families studied, one parent was found to be dead, while one parent was absent or divorced in another 18%. In an additional 20% of the families,"one of the parents was being treated for relatively severe chronic psychiatric illness such as alcoholism or epilepsy" (p. 205). McCord and McCord (1964) associated family disorganization with drug addiction. Cockett (1971), in his study of young male offenders in Britain, concluded that disruption or severe disturbance of family bonds were unrelated to drug use. However, Gormely, Blum and LeDain each supported the findings of McCord.

Maternal dominance and paternal absence or ineffectiveness have been found positively correlated with non-medical use of drugs (Chein, 1964; Nyswander, 1956). Gerard and Kornetsky (1954) proffered a theory of maternal manipulation as explanatory of the above relationship. The theory is that the mother provokes defiant behaviour in the child towards a society in which she finds herself disadvantaged. Hence, an inability to adequately relate to society is evident in the child.

Lack of parental love, poor parental relationships and their addictive problems, characterized the early lives of young women using methadrine, according to Longdon (1973). His study of young women concluded the above mentioned factors as significant characteristics common to all subjects. Similarily, marital discord and/or poor family relationships were found to be characteristic of drug dependents (Nelson, 1972).

Family status and parental education have been demonstrated to be positively correlated to drug use (Smart and Fejer, 1969; 1974; Blum, 1969a; Wozny, 1971; Suchman, 1968).

Peer relationships have also been found to be highly significant in drug use (Goode, 1969; Lennard, 1971). The Edmonton Public School Board (EPSB) Drug Report (1971) concluded that family and friends had the greatest influence on students' termination of drug use. Louria's (1968) study of colleagues in the New Jersey Medical School concluded that peer pressure accounted for at least half of the total risk involved in drug use. Blum (1969b) reported that 97% of users had friends who are users (p. 186). The LeDain Commission's (1973) study of university students found that only 3% of Canadian university cannabis users had first tried marijuana by themselves. Generally drug use has been found to be a joint or group activity with introduction to use through interpersonal persuasion.

In yet another area, namely education, evidence suggests that drug users are more estranged from school activities (Blum, 1969a; Gormely, 1970). Users participated less in extra-curricular affairs, and a decreasing percentage were reported in the higher grades of university classes (Suchman, 1968). The EPSB Drug Report (1971) noted a continual increase in proportion of students reporting drug use for non-medical reasons as the grade level increased, the greatest rate of increase being in the interval between grades 7-8 and 9. These findings of increased usage relative to grade placement were substantiated in studies of school children in Halifax and Toronto (Whitehead, 1969; Smart

et al, 1970). Also, users have been found to be more truant from school and more often underachievers (Smart and Fejer, 1969).

To summarize, research has found a negative correlation between religious affiliation and drug use. The abstemious use of alcohol and tobacco by both child and parents was also negatively correlated. Family variables such as income, parental education, parental political persuasion, parental discord and parental religious affiliation were found to be significantly related to drug use by the child.

Peer attitude toward, and involvement with, drugs were found to be highly correlated with user's introduction to drugs. Also, grade level, academic achievement and school involvement were found to be negatively correlated to drug use.

ATTITUDINAL VARIABLES

Riggs (1971) concluded from her study of Edmonton High School students, that attitude toward drug use was a most significant factor discriminating user from non-user. A positive attitude towards drugs was found associated with increased usage for non-medical reasons. Others have substantiated this finding (Blum 1969b).

Lennard (1971) found that the user had an attitude of immediacy, meaning thereby that drugs were used to heighten the experience of effect. In this way, cognitive input was decreased and emotive experience was increased.

Zyderveld (1970) had opined that drug use may be related to rejection of an abstract society, with its emphasis upon

objectivity, rationality and routine. The user would thus stand in opposition to this abstractness, attempting to find personal space for emotions, beliefs and interpersonal relationships.

Riggs (1971) theory of dual escape is instructive in regard to the attitudinal components of drug use. She stated that drug use is both an "escape from" and an "escape to" experience. On the one hand, it is a "turn on" or "escape to" experience in which emphasis is upon mind expansion and thrill seeking. On the other hand, there is the "tune out" or "escape from" experience which is a flight from anxiety, pain and bombardment of the senses.

Drug users have been described as alienated (Keniston, 1965), individualistic (Boggs and Wesley, 1973), bored (LeDain, 1973), seeking spiritual values in a spiritually vacuous society (LeDain 1970; Houston, 1971). Carman (1973) was of the opinion that drug use for non-medical purposes by high school youth is directly related to preferences for independence, "freedom from interference from others, and opportunity for autonomous decision making. (p. 737) The LeDain commission (1970) recorded the attitude of some users who described their use of drugs as "dehabituating, desophisticating and deconceptualizing as helping the personality to break out of the mould" (p. 160).

Hughes, Suchman, Simmons and Winograd have all established the relationship of drug use to an attitude of anti-establishment. This negative stance is often reflected in attitudes of pessimism, aimlessness and purposelessness (Gerard and Kornetsky, 1954; Blum, 1972; McGlothlin and West, 1968). However, in making these claims

and testing their verity, the measures used to test attitudes of meaninglessness, powerlessness, pessimism and the like, are developed from within the culture which is often rejected by the drug user who is declared as anti-establishment. The criticism that the claim is specious cannot be discounted without further study.

Exploration of the literature has thus evolved the following attitudinal characteristics of drug users. They are anti-establishment, more likely middle class, shifting away from parental values and relatively without firm structure or discipline (Hogan, 1970; Blum, 1969a; Hughes, 1971). The drug user may use drugs as both "escape from" and "escape to" experience. His attitude is characterized by immediacy and a resistance to abstractness. Generally, the user's attitude is characterized by less conservatism or a more liberal attitude towards customs and values resident in the contemporary society.

SUMMARY AND CRITICISMS

The above review leads one to the conclusion that the variables related to drug use are diverse. Some of the findings are equivocal and some stand in contradiction to others. This situation is in part constituted by the complexity of the social and psychological factors involved and also by the lack of specificity and precision in any instrument which a researcher may employ in such complex circumstances. For example, it is difficult to isolate psychological or sociological variables in order to determine predictors of drug use. The variables are too interrelated and global to control for cause and effect, such that concise and unequivocal results are evident.

Another major criticism of much research involving the nonmedical use of drugs is that a substantial portion of it has been undertaken in the heat of political upheaval. Drug use was initially most prominent amongst the war dissenters and those critical of the social and political processes. It became politically expedient, in these circumstances to mark such people as deviant because of their drug use, and thereby hope to lessen their critical function in the social order. Since drug research was undertaken in this emotion laden atmosphere, the difficulty of obtaining objective and dispassionate results under such circumstances can be appreciated.

CHAPTER III

INSTRUMENT, POPULATION, SAMPLES, AND PROCEDURES

THE INSTRUMENT

The instrument for this research comprized of two attractively designed booklets. Booklet 1, titled "Myself and My View of the World Around Me", contains 220 items most of which are related to the perspectives and concerns of youth. A few items elicit biographical data. The 220 items of this booklet give measures on twelve dimensions or scales. Booklet 2, titled "My Values and Beliefs", has 200 items related to the individual's values, beliefs, perceptions and needs. The items contained therein give measures on 13 dimensions or scales. Extensive information about the questionnaire is available in Strommen and Gupta (1971, sections 1-4).

Except for the few biographical items contained in the questionnaire, all the other items are related to what the authors defined as the two universal needs of youth, mutuality and mission. Mutuality was defined as a process of self-disclosure and self-evaluation through which one develops an identity. It is the prizing of one's self in relationship to another. In this relationship, one discovers one's place in the scheme of life and

community, and mutual exchange occurs. Conjoint to this involvement, values, beliefs and attitudes develop.

Mission was described as the process by which one appreciates that one's life has significance for others and that actions, attitudes and evaluations have meaning relative to others. Hence social awareness and social action take place as an outgrowth.

Thus mutuality and mission are complimentary to one another. Experiences of mutuality are necessary to mission in that as one appreciates himself, he also sees himself as being able to contribute to the lives of others. When these two needs are satisfactorily met, the individual matures in values, beliefs and attitudes and develops a sense of direction for life. It is this theoretical approach out of which the questionnaire developed.

DEVELOPMENT OF SCALES

From the 420 items, 25 scales, which are highly homogeneous and factorially independent, were developed. The scales included 280 of the original 420 items. The methods employed to develop these scales are rather complex as evident from Strommen and Gupta (1971, 4, pp. 7-9).

The 25 scales are subdivided into 4 areas. They are 1) Concern Scales, 2) Values and Belief Scales, 3) Perception Scales and 4) Frankness Scale.

There are 10 concern scales, with average size of 9.70 items. Their reliabilities range from .56 to .89, with a median of .86. All but two of the scales have reliabilities over .80.

There are 11 values and belief scales with mean size being 12.64 items. The range of their reliabilities is .59 to .83. Except for two scales with reliabilities of .59 and .61, the reliabilities of the others exceed .70. The median reliability is .75.

The perception scales are three. Their average size is 9.67 items and the reliabilities are .70, .80 and .81.

The remaining scale is a "validity" or "lie detection" scale. It contains 15 items and has a reliability of .68. It is known as "Frankness Scale".

DESCRIPTION OF SCALES

The scales are described by the authors as follows (Strommen and Gupta, 1971, 4, pp. 1-4):

> 1. Family Unity. This scale reflects youth's concern and anxiety over the emotional climate within his home; the lack of closeness, cohesiveness, togetherness, and oneness of family members; their lack of understanding and consideration for one another; and the quality of inter-action between the parents and the children.
>
> 2. Parental Understanding. This scale reflects concern over lack of communication and understanding between a youth and his parents; distress over the feeling that he is being treated like a child; and disappointment in his parents' distrust or rejection of him and his friends.
>
> 3. Family Pressures. The pressures identified in this scale are those which tend to intensify negative reactions in a home. They include such difficulties as divorce,

separation, illness, financial problems, tragedy and parent-youth strife. The more difficulties that are identified, the higher the score.

4. Life Partner. This scale reflects a youth's uncertainty over his relationship with the opposite sex and his anxiety over the possibility of not having a happy marriage. The items also tap the fear of not being wanted or found desirable by persons of the opposite sex.

5. Lack of Self Confidence. This measure indicates the extent to which a youth feels uncertain about himself and is afraid of making mistakes or exposing himself to ridicule. A high score identifies the person who tends to be self-conscious, uneasy in a group situation, anxious to please others, and over-eager to avoid occasions where he may be embarrassed.

6. Academic Problems. This dimension relates to concerns about the academic aspects of school life. The scale assesses the degree to which the respondent is worried about his grades--actual and anticipated, his frustration over not being able to concentrate on school work, and his self-blame over doing poorly or failing.

7. Personal Faults. Another source of self-criticism is a youth's awareness of not having lived up to his ideals. As a result, he feels guilty. This scale measures his feeling of self-criticism, both with respect to what he has done and what he has failed to do. It reflects a mode of thinking and feeling about oneself that often undermines one's self-confidence.

8. Classroom Relationships. This scale focuses on the feeling of not being accepted by one's classmates and teachers. It indicates the degree to which a respondent is lonely and feels like an outsider or an unwanted intruder. In the case of girls,

high scores are usually associated with feelings of inadequacy. For boys, they are associated with criticism by others. A high concern in this area often indicates a conformity to status quo and a willingness to acquiesce to social pressure.

9. National Issues. The past decade has witnessed a phenomenal rise in concern among youth for what is happening within the nation and the world, especially as it relates to peace and happiness. This scale reflects their fear of pollution, nuclear holocaust, violence, revolution, war, disorder, and lawlessness. It also assesses their concern over unjust laws and the seeming unresponsiveness of government to the needs of people.

10. God Relationship. Another dimension of youths' concern is their troubled awareness of feeling distant and alienated from God. It focuses upon their feelings of spiritual lonesomeness and their concern over not being able to live up to their religious convictions. It measures a youth's feelings of uncertainty about his relationship with God and his concern about life after death.

11. Interest in Help. This scale assesses the degree to which the respondent wishes to participate in the opportunities which are provided or which might be provided by a congregation or school. It presents descriptions of helpful types of activities and encourages the young person to choose those which are of interest to him. A fairly strong association has been found between declared interest and actual participation.

12. Maturity of Values. A maturing person is increasingly able to make his own decisions rather than depend upon the opinions of others. This scale assesses the degree to which one feels free to make independent choices. It indicates the extent to which he feels in control of his behavior and able to resist immediate drives and pressures of others. A high score suggests one who believes

he can move toward goals that serve as his ideals.

13. Orientation for Change. This scale reflects youth's thinking in the political realm of law enforcement, social welfare, race relations, war, reforms in school curricula, and sexual behavior. It indicates whether one leans toward traditional thinking in these matters or whether one takes a liberal stance that welcomes change.

14. Moral Responsibility. An important attitudinal stance toward life relates to the age-old question: Am I my brother's keeper? The items in this scale reflect the extent to which a youth retreats to a privatism where he denies the existence of a moral order or becomes involved in life by accepting a God-given sense of responsibility for others.

15. Meaningful Life. The items here center in a life style that accords importance to such life goals as serving others, ethical behavior, wisdom, honesty, giving and receiving love, forgiveness, family happiness, and meaningful work. A low score points to a contrasting life style which is characterized by goals that are hedonistic and self-centered, giving a high priority to having plenty of money, personal power, physical attractiveness, pleasure and excitement, recognition, skill, and expertise.

16. Religious Participation. The items in this scale assess the degree of a youth's involvement in the activities of the institutional church or synagogue and indicate his general acceptance of the declared beliefs and values. It reflects also his stance in the evaluation which he gives his religious institution and its worship services.

17. Social Action. This scale relates to the practical expression of a youth's concern for other persons in his society--what he is doing or has done recently to help the lonely or

rejected, minorities, and people in need or distress. It assesses the extent to which youth are helping through small deeds of kindness and participating in activities labeled social action.

18. Self Regard. Most youth experience times when they hold a low opinion of themselves. When these occasions are prolonged or become frequent, self-confidence or self-esteem is undermined. The Self Regard scale measures the degree to which youth accept themselves as persons of worth and promise.

19. Human Relations. The attitude probed by these items relates to the presence or absence of an openmindedness, sensitivity and compassion toward those who are often criticized and judged harshly. The reasons for criticism may be racial (Negroes), religious (Jews), chauvinistic (people of enemy countries), ideological (communists), or the like. A high score implies an understanding of the essential equality of all men before God.

20. God Awareness. These items allow for a positive affirmation of faith by indicating the extent to which youth are aware of God in their lives and believe that He is an ever-present reality. The items allow also for an affirmation (or denial) of the reality of life after death and the potency of prayer.

21. Biblical Concepts. This scale distinguishes those who hold to a humanistic or folk-religion from those who hold to a particularistic Christian faith. It indicates those who both perceive the conceptual uniqueness of Christianity and reject generalized statements of religion.

22. Youth Group Vitality. This measure shows the degree to which a youth is impressed by the climate of acceptance and sense of mission that characterizes his youth group--a climate in which he feels at home and can be himself without fear of criticism or of being belittled.

23. Adult Caring. These items relate to youth's perception of the acceptance, care, and attention accorded them by adults in their congregations. It also reflects their evaluation of what the congregation is doing in relation to human needs and their manifest concern over current social problems. A low score identifies those who feel negative about what they see in the adults of their congregation.

24. Family Social Concerns. The dimension assessed here is youth's perception of the degree to which his parents and family are responsive to human needs. It gives a fair estimate of the extent to which they are involved in some form of social action or some effort to help others.

25. Frankness. The scale assesses openness in admitting what is uncomplimentary about oneself. It is a check on the degree to which a youth distorts information about himself. This scale is a class in itself and gives an indication about the genuineness rather than faked nature of the responses.

TABLE 1

THE ECUMENICAL SAMPLE

CLASSIFIED BY DENOMINATIONAL AFFILIATION

Denomination	Sample Size
American Baptist	1038
Southern Baptist	917
Young Life Clubs	1397
Baptist	
Episcopal	
Lutheran	
United Methodist	
Presbyterian	
United Church of Christ	
Roman Catholic	
Other	
Roman Catholic	1818
United Methodist	522
Episcopal	593
Twin Cities	765
Lutheran	
Covenant	
United Church of Christ	
Episcopal	
Roman Catholic	
United Methodist	
Presbyterian	
Christian	
Russian Orthodox	
Greek Orthodox	
Jewish	
TOTAL	7050

POPULATION AND SAMPLES

Population

The sampling was undertaken by the Youth Research Center of Minneapolis, Minnesota. The sample consisted of 7050 youth who were members of the major denominations in the United States of America. The composition of the ecumenical sample is given in Table 1. (Strommen and Gupta, IV, 1971, p. 5) Of the total number, 3,222 were males and 3,828 females. The data were collected in 1970, using the instrument previously described. The methods employed to collect the data are available in Strommen and Gupta (1971, VI, p. 5-7). Two stage cluster sampling procedure was used to draw the sample. The resulting sample was as good as random.

Obtaining Contrasting Groups

A sample of drug users was chosen from the above 7050 subjects on the basis of their responses to questions 185, 198 and 207 of the questionnaire, as shown in Table 2.

Subjects whose replies satisfied each one of the conditions in column two were called drug users. Thus, drug users frequently used alcoholic beverages, had occasionally experienced a degree of inebriation, and had also frequently used psychedelic, hallucinogenic or narcotic drugs. Definition of a drug user, therefore, implied frequent use of drugs, which use included alcohol as well as "street drugs". Using these criteria yielded 129 subjects.

TABLE 2

CRITERIA FOR SELECTING

DRUG USERS

Question	Replies Column 1	Column 2
	Non-Users	Users
1. I drink alcoholic beverages	Never	About once a week or More than once a week
2. I sometimes get high on alcoholic beverages	No	Yes
3. Which statement best describes your use of drugs	I have not used drugs	I use pot frequently or I use pot frequently and have used LSD or I have used speed either alone or with other drugs or I have used heroin or other hard narcotics

A contrasting and almost equal sized group was then chosen from the 6,921 subjects falling in column 1 of Table 2 by taking a systematic sample of every 54th subject. This gave 128 subjects.

The samples were further refined by eliminating those who had responded to only one of the two survey booklets. The final samples contained 121 users and 124 non-users of drugs.

ANALYSES

The data obtained from the instrument were analyzed in several stages and ways.

The data were analyzed (a) with respect to the means and variances on the twenty five scales, (b) the means and variances on the items within each of the scales, (c) the responses on selected scale items of the instrument including some biographical items. Specific details of the analyses are given below.

It was hypothesized that the drug users and the non-drug users come from different populations with respect to their scores on the scales. The research literature reviewed in Chapter II suggested that drug users are distinguishable from non-users on certain measures of attitudes, values and beliefs. The means and the variances of the contrasting groups were compared on the twenty five scales, using the Student's "t" and Fisher's "F" respectively. Before the score on a scale was obtained, the responses to the individual items within it were subjected to reciprocal averages method to obtain weighted scores.

These resulting weights were derived through the employment of an iterative procedure which yields a set of optimum weights for each item. The effect of the differential weighting is to give maximum internal consistency for each scale.[1]

Following analyses of the scale means, the means on individual items within the scale were then analyzed, using the Student's "t".

Following these analyses, the "F" ratio was used to analyze the variances on each scale and then on the items within the scale. It was hypothesized that drug users would exhibit more deviancy in their responses, hence one could expect a greater degree of heterogeneity in the group.

Following the above analyses, the groups were compared on some of the 140 items which were not included in the scales. The raw scores on the items were used in these analyses. Those items in which the responses were of an ordinal nature were analyzed using the Student's "t" test. Items yielding only nominal data were subjected to the Chi-square test of independence. For the latter, cross tabulations were used to establish frequencies and percentages of responses. The items in this category were, for the most part, biographical in nature.

The results from this section were considered as supplementary to those from the scales. Single items, which could reflect the subjects' mood, were not considered to have the same utility as the scales, in determining values, attitudes and beliefs.

1. See Appendix A for more details regarding procedures and benefits appertaining thereto.

GENERAL HYPOTHESES

Research evidence is more or less conclusive in supporting the relationship between drug use and the "hang loose ethic". This ethic is behaviorally expressed in a negative attitude toward the major institutions as previously mentioned, and also in more liberal attitudes towards the accepted values in our North American culture. One could, therefore, hypothesize that drug users, who also have affiliation to the church, will express and evidence a more tenuous relationship to that institution. Specifically, when compared to non-users, they will be less in attendance of the functions appertaining thereto; they will hold less orthodox beliefs relative to the major creedal positions, and they will value less the customs and practices which the institution supports. Included in the above would be practices of personal piety such as public worship, private prayer, Bible-reading and the like.

The literature reviewed indicated that drug users tend to be more oriented to change than non-users. One would, therefore, expect drug users who are church affiliated to demonstrate the same attitude.

Estrangement from school activities, and a decrease in grades for drug users, are also reported in the literature. It would be logical to hypothesize that church affiliated youth using drugs would evidence similar behavioral patterns.

Assuming that drug users of this study would evidence similar characteristics to those users who have been surveyed in other research, as reviewed previously, it would be logical to expect similar psychological and sociological variables to be applicable to them also. If so, one would expect the users to evidence more family discord and disorganization; they would be more skeptical of societal expectations; they would be more inner directed, having higher needs for intimacy and affection; they would have weak ego structures and a less developed super-ego.

Although it might be hypothesized that church affiliated youth who also use drugs may, in fact, have characteristics which make them a unique group, it must be assumed, until or unless proven otherwise, that there is no difference between users irrespective of church affiliation.

SPECIFIC HYPOTHESIS

The hypothesis of this research is the following:

Drug users who are also church affiliated youth will display characteristics of the "hang loose ethic". They will exhibit less attachment to the institution and adher less to its practices, customs, and beliefs. This lessened attachment will also be evident in the users attitudes towards other societal institutions and customs.

CHAPTER IV

RESULTS AND INTERPRETATIONS

Results obtained from comparing the two contrasting groups on the 25 scales are discussed first such that the results obtained from each scale are followed by those from the items within it. An interpretation of the results of the total scale then follows.

Following these analyses of the scales, the results obtained on selected biographical items, plus their interpretation, follow.

CONCERN SCALES

Scale 1: Family Unity

The means of the groups did not significantly differ on Scale 1, which deals with matters related to family unity. The same applied to each of the items within the scale as shown in Table 3. On nine of the ten items, however, the user group had higher means, suggesting somewhat greater concern about family relationships.

The F value for the scale was significant, although none of the individual items within the scale gave significant F. This

TABLE 3

RESULTS OBTAINED FOR SCALE 1
FAMILY UNITY

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	49.91	46.94	1.210	.228	1.669**
ITEMS					
21	4.57	4.61	-0.121	.904	1.005
31	5.04	4.76	0.726	.469	1.034
39	4.98	4.62	1.258	.210	1.007
48	5.41	4.89	1.422	.156	1.299
67	5.26	4.55	1.957	.051	1.033
74	5.04	4.65	1.113	.267	1.128
84	5.07	4.90	0.502	.616	1.081
91	4.66	4.53	0.336	.737	1.051
97	5.01	4.77	0.627	.531	1.144
102	4.86	4.65	0.544	.062	1.045

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

seeming anomally may be accounted for in the fact that on every item, except item 39, the non-users had a higher variance.

These results would indicate that the perceptions which the users hold concerning family are more homogeneous. This fact, plus their higher means on most of the items within the scale, indicates that as a group, they hold a more negative attitude about what is happening in the family.

Scale 2: Parental Understanding

On Scale 2, which is a measure of understanding and trust between parent and child, the groups had a highly significant t value, indicating higher mean for "users". On six of the nine individual items of the scale, the same held true. In fact, "users" had higher means on all of the items except one, indicating that, as a group, they exhibit a significantly higher degree of concern in these matters.

The concerns are that their parents do not trust them, and that they do not grant them the desired independence in decision making. They also perceive their parents as being too strict. This suggests that the values which drug users hold are more at variance with those of their parents than is the case for non-users of drugs.

These results are in line with the findings of Blum (1969a) and also Gormely (1970), who found the discordance of values and lack of mutuality between parent and child were related to drug use. On the basis of this research, one may conclude that poor relationship between parent and child is temporally related to drug use.

TABLE 4

RESULTS OBTAINED FOR SCALE 2
PARENTAL UNDERSTANDING

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	38.93	32.72	2.774	.006	1.469*
ITEMS					
22	4.22	3.55	1.987	.048*	1.139
32	3.59	3.64	-0.177	.859	1.063
40	4.77	3.82	2.699	.007**	1.158
49	4.64	3.69	2.409	.017*	1.275
58	4.45	3.44	3.205	.001**	1.047
68	4.01	3.98	0.064	.949	1.193
75	4.37	3.60	2.069	.039*	1.188
95	4.33	3.44	2.428	.016*	1.090
103	4.55	3.55	2.736	.007**	1.004

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

The F value for the scale is significant, in favour of the users, which could be interpreted to mean that non-users of drugs are more homogeneous with respect to their perception of parental trust and understanding. The implication is that the relationship between parents and children of non-drug users are more harmonious than is true for users.

The results found from both the measure of central tendency as well as the variance, indicate that for drug users, the parent-child relationship is more diverse and it is also perceived as being less accepting, than it is for non-users. As a consequence, drug users express more concerns in the area of parental understanding.

Scale 3: Family Pressures

Users also indicate a higher incidence of family pressures which have a negative effect on familial experience. Scale 3, which is a measure of the above, gave a significant t. The same applied to four of the seven items within the scale. The mean for the scale, as well as for each of the items within the scale was always in favour of the users.

This finding indicates that users are more concerned about family pressures. They more often expressed concern that their parents were either separated or divorced. As well, they more often indicated that there were difficulties in the home such as, unemployment, illness and death. Users also showed a greater concern that they were not able to get along with their mothers or fathers or both.

TABLE 5

RESULTS OBTAINED FOR SCALE 3
FAMILY PRESSURES

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	18.44	14.52	4.551	.000**	1.616**
ITEMS					
202	2.49	1.65	2.501	.013*	2.178**
204	2.39	2.23	1.793	.074	1.607
205	2.59	2.16	1.758	.080	1.162
209	2.75	2.08	2.787	.006**	1.262
210	2.75	1.87	3.766	.000**	1.445*
217	2.74	2.37	1.087	.278	1.178
220	2.74	2.16	2.361	.019*	1.182

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

These findings are supported by both Carney (1972) and McCord (1965), who reported that instability in the home, and/or absence of either parent, was related to drug use. It would appear that adolescents, lacking a secure relationship in the home, turn to drugs to escape the exigencies which press upon the family experience.

There was also a significant difference in measures of variance on the scale as well as on the individual items within it in favour of the users. Parental separation, personal illness, and difficulty in the relationship with the mother were specific items of difference.

The results found on this scale compliment those from Scale 2. Family variables are related to drug use. Specifically, parental absence, lack of understanding and mutual solidarity, and the presence of severe difficulties in the home are positively correlated to drug usage. It would appear that drugs are used as an "escape from" pressures and parental behaviors which the adolescents cannot handle.

Scale 4: Life Partner

The t value for this scale was found to be significant in favour of the non-user group. The same applied to five of the seven individual items within the scale. The reverse was true about item #86 though.

The results indicate that drug users have less concern in matters of sexuality than do non-users. The latter expressed a greater concern about appropriate sexual behavior and they

TABLE 6

RESULTS OBTAINED FOR SCALE 4
LIFE PARTNER

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	29.69	33.06	-2.222	.027*	1.108
ITEMS					
86	4.96	4.40	2.271	.024*	1.325
126	4.07	4.81	-2.203	.029*	1.158
128	4.25	4.96	-2.090	.038*	1.104
129	3.99	4.91	-3.306	.001**	1.279
130	4.44	4.47	-0.111	.912	1.197
132	3.89	4.69	-2.126	.035*	1.169
133	4.10	4.83	-1.952	.052	1.036

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

expressed more concern about compatibility and happiness in marriage: qualities which go in a marriage partner.

These results appear to indicate that non-users have a greater sensitivity to, or awareness of, social expectations regarding sexual conduct and marriage customs. They appear to be more directed toward future satisfaction and happiness with respect to heterosexual relationships. They seem to expect this future happiness in the traditional values of marriage and family life, whereas drug users seem to take a more permissive stance in these matters.

Considering these findings in conjunction with those from scales 2 and 3, it appears that drug users neither had a highly satisfactory family experience nor appeared to be concerned about finding happiness in their own married lives. As compared to non-users, one could conclude that not having had a positive experience in the family, they do not place as much value in entering and establishing such a relationship in their own lives either. Drug use may, therefore, be an attempt to search inward for personal values which do not seem to be possible in relationships with others. Hence, users may place less value in harmonious heterosexual relationships.

The findings are in keeping with those by Longdon (1973), Nelson (1972), and O'Donnell (1969) (see chapter two). Drug users tend to take a more permissive stance in matters related to sexuality.

The variances of the two groups were not significantly different, however.

TABLE 7

RESULTS OBTAINED FOR SCALE 5
LACK OF SELF CONFIDENCE

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	38.46	42.51	-2.522	.012*	1.089
ITEMS					
23	5.04	5.41	-1.132	.259	1.016
33	4.68	5.63	-3.001	.003**	1.222
38	5.39	5.67	-1.042	.299	1.031
44	4.41	5.16	-2.608	.009**	1.183
52	4.67	4.64	0.334	.739	1.045
55	4.96	5.04	-0.249	.804	1.091
61	4.40	5.30	-2.524	.012*	1.053
78	4.82	5.66	-2.341	.020*	1.107

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

Scale 5: Lack of Self Confidence

The t value for the total scale as well as for four of the eight items within it were significant.

Non-users had higher means on the scale as well as on each of the items within it. This would suggest that non-users are more conscious of expectations placed upon them and they appear to be more fearful of not fulfilling those which they have internalized. This finding is in line with that already reported for Scale 4. To restate it in another way, social expectations appear to have a higher personal value for non-users of drugs, when compared to drug users.

The results could be interpreted to mean that drug users tend to be less accepting of others' expectations. They could perhaps be seen as more egocentric, having more confidence in their own decisions and placing less emphasis upon others' evaluations. On the basis of these results, one could hypothesize that drug users may feel less pressure to please others and are less concerned about ridicule. If this is so, one might propose that drug users have an anti-establishment attitude. Such an attitude requires an aloofness from the majority culture which perpetuates and reinforces social values.

Neither on the scale nor in its items did the variances of the groups differ, however.

Scale 6: Academic Problems

The t ratio for scale 6 was not significant, its probability being 0.444. Only one item within the scale gave significant

TABLE 8

RESULTS OBTAINED FOR SCALE 6
ACADEMIC PROBLEMS

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	45.77	44.40	0.767	.444	1.411
ITEMS					
25	5.31	4.90	1.304	.193	1.142
34	5.21	4.81	1.199	.232	1.018
62	5.29	5.13	0.460	.646	1.044
69	4.75	4.81	-0.189	.851	1.071
70	4.87	4.98	-0.355	.723	1.111
98	5.03	4.85	0.566	.572	1.152
106	5.85	5.02	2.538	.012*	1.126
123	4.82	4.91	-0.378	.706	1.230
131	4.64	4.99	-1.350	.178	1.097

N = 121 Users, 124 Non-Users
* P .05
** P .01

difference between the groups. This single item related to concern over grades achieved in school. Drug users indicated a greater dissatisfaction with the grades which they had been given. In toto, however, results of the scale indicate that there is no difference between users and non-users with respect to academic problems.

The F values for the scale and its items were not significant either, indicating the two groups were equally homogeneous.

Scale 7: Personal Faults

This scale, which is a measure of self criticism, gave significant differences between the groups.

Six of the nine items within the scale also showed significant differences between the group means. Non-users had higher means which suggests that they are more critical of themselves than users. They expressed a greater concern over their faults: they felt more inadequate in meeting the needs of others, and they expressed greater concern over unacceptable thoughts and actions. These findings would suggest that non-users are more cognizant about and more accepting of others' expectations than users. They appear to value social approval more highly. This finding is consistent with that from scale 5, namely that non-users appear to value social expectations more than users.

A joint consideration of the findings from these two scales suggests that drug users stand more aloof from the society of which they are a part. They do not appear to have internalized its values to the extent to which non-users have. This may

TABLE 9

RESULTS OBTAINED FOR SCALE 7
PERSONAL FAULTS

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	62.84	68.50	-2.474	.014*	1.192
ITEMS					
43	4.85	5.41	-2.239	.026*	1.259
57	5.56	5.65	-0.325	.745	1.124
65	4.83	5.52	-2.475	.014*	1.240
73	5.41	5.54	-0.381	.704	1.172
104	5.32	5.73	-1.341	.181	1.083
110	5.50	5.85	-1.119	.264	1.083
117	5.66	5.96	-1.042	.299	1.095
119	5.12	5.78	-1.948	.052	1.072
120	5.27	5.90	-2.058	.041*	1.296
121	5.14	5.83	-2.247	.026*	1.157
122	5.14	5.65	-1.480	.140	1.203
127	5.04	5.67	-2.133	.034*	1.257

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

TABLE 10

RESULTS OBTAINED FOR SCALE 8
CLASSROOM RELATIONSHIPS

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	76.99	79.76	-1.021	.308	1.231
ITEMS					
27	4.78	5.43	-2.368	.018*	1.067
36	4.36	5.23	-2.753	.006*	1.151
46	5.02	5.20	-0.637	.525	1.041
60	4.55	5.54	-3.538	.000**	1.053
64	5.32	5.34	-0.052	.959	1.037
71	5.64	4.99	2.151	.033*	1.033
72	4.79	4.84	-0.188	.851	1.077
77	5.66	5.75	-0.284	.776	1.034
79	5.88	5.65	0.669	.504	1.028
80	4.70	4.77	-0.176	.860	1.104
99	5.88	5.73	0.440	.660	1.052
100	5.16	5.45	-0.960	.390	1.105
107	4.99	4.98	0.024	.980	1.084
108	5.28	5.46	-0.592	.555	1.146
112	4.98	5.40	-1.164	.245	1.023

N = 121 Users, 124 Non-Users
* $P < .05$
* $P < .01$

account for the characteristic anti-establishment attitude of drug users. Drug users may be more inner directed than non-users. If this is a fact, it would appear that drug users are more individualistic. Hence, their behavior would be more in conflict with the pressure to conform, which society places upon its members. The literature has, for the most part, typified the drug user as being less conforming of the majority culture. This nonconformity may be rooted in a pronounced individualism amongst drug users. In part, this individualism may be related to a lack of interpersonal skills which Pugh (1972) found to be present in alcoholics. Variances of the two groups did not differ, however.

Scale 8: Classroom Relationships

Scale 8, a measure of classroom relationships, gave t value of -1.021 which is non-significant ($P < .05$). Of the 15 items within the scale, only four gave significant t ratio. Thus it can be stated that classroom relationships, as measured by this instrument, do not distinguish between users and non-users of drugs. The same held true about the variances of the two groups.

Scale 9: National Issues

The t value for scale 9 was not significant. However, seven of the ten items within the scale indicated significant differences between the groups. Of those seven, four were in favour of the user group and three against them.

One would expect the scale to distinguish user from non-user, since the literature overwhelmingly reports that drug

users hold a more liberal or avant-guarde attitude toward political issues. It appears that this instrument was not geared to measure "direction" of attitude even though the majority of the items therein gave significant t. For example, a person who exhibited extreme concern over the issue of the draft and, therefore, gave it a high value, is juxtaposed with the individual who sees protest movements as destructive and, therefore, gives a high value to that item. Thus in the total scale value, the high score given on one item is cancelled by a high score given another item even though they measure opposite attitudes and values. Since the whole scale does not distinguish between political value systems, it is prevented from measuring political differences.

Non-users exhibited a greater concern over issues of pollution, violence and crime in society, and political protest whereas users were more concerned with matters related to the draft and war, and the injustice of some laws.

These two areas of concern are, for the most part, indicative of polarities in American political life. The "left" views government as intruding upon personal rights through laws which they believe touch upon individual freedom. Laws such as those related to military conscription and drug use are exemplary. The resistance to such laws is not only related to the desire for personal freedom; they are as well related to a skepticism of the moral turpitude of political leadership.

TABLE 11

RESULTS OBTAINED FOR SCALE 9
NATIONAL ISSUES

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	54.69	51.48	1.359	.175	1.041
ITEMS					
28	5.17	4.74	1.276	.203	1.140
30	4.53	5.15	-1.966	.025*	1.136
37	5.74	4.40	4.773	.000**	1.441*
47	5.76	4.48	4.873	.000**	1.275
56	5.02	4.47	0.650	.516	1.134
81	4.90	4.94	0.082	.935	1.195
83	4.84	4.66	0.447	.447	1.280
94	5.18	4.31	2.507	.013*	1.092
109	4.22	4.82	-2.169	.031*	1.162
113	4.05	4.90	-2.326	.021*	1.130
116	5.28	4.32	2.870	.004**	1.170

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

Conversely, the "right" sees the government as needing to be active in restraint of the individual rights so that personal libertinism would be stemmed and the status quo retained.

Evaluating the results in this context, it is apparent that non-users of drugs uphold the status quo or "law and order" position. Even though the t value for the scale was not significant, the items within the scale which measured significant differences between groups were clearly indicative of different political positions. These differing positions are in harmony with those found in the research, previously mentioned, of Simmons and Winograd.

The F value for the scale was not significant. Of the 11 items in the scale, only one measured a significant degree of difference between the variances of the groups.

Scale 10: God Relationship

The t value for scale 10 is -1.821 (prob. 0.070). This scale is a measure of youth's concern over his relationship with God. Both user and non-user groups scored relatively high mean values for items within the scale. However, on the majority of the items, these high mean values did not indicate any significant difference between groups but rather concordance of values.

The high means indicates that both groups expressed some concern about their spiritual well-being. The research literature has not supported such a finding. For the most part, the research has described the drug user as holding a more agnostic position than the non-user. However, LeDain does give some

TABLE 12

RESULTS OBTAINED FOR SCALE 10
GOD RELATIONSHIP

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	51.47	55.13	-1.821	.069	1.232
ITEMS					
281	5.69	6.05	-1.300	.195	1.181
283	5.98	5.89	0.277	.782	1.153
285	5.40	5.58	-0.482	.629	1.108
287	6.48	5.94	1.727	.086	1.061
291	5.18	6.46	-3.437	.001**	1.206
292	5.83	6.10	-0.838	.403	1.292
293	5.99	6.19	-0.657	.512	1.004
294	5.79	6.87	-3.420	.001**	2.290**
295	5.13	6.05	-2.464	.014*	1.278

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

support for the viewpoint that drug use is related to a search for spiritual values.

The fact that the sample for this research was chosen from the population of church related youth may account for the lack of difference between groups on this scale. The users and non-users demonstrate a concern for spiritual fulfillment to the same extent.

There was no significant difference between the groups variances as measured by the F test.

Summary

In summary, the significant findings related to the Concern Scales centered in family concerns and social relationships. Non-users expressed less concern about family related matters. Moreover, they appeared to be more sensitive to social criticism and social expectations. These findings suggest that the family socialization process may extend into the larger societal order inasmuch as drug users who have difficulties in family relationships and who experience greater family pressures are less concerned with social customs, standards and expectations. It thus appears that their investment in social values and attachment to them are less of a bond for them than for non-users. They appear to place less value on social approval than the non-users. One could conclude that there is a temporal relationship between family experience, social expectations, and drug usage. Does this finding imply that lack of family bonding generates an ever widening lack of affiliation to larger social orders? Is

there a causal order or is it merely temporal? This research is unable to answer these questions.

BELIEF AND VALUE SCALES

There are 11 scales in this section. They assess the beliefs and values which the subjects hold. In general, they attempt to measure the attitudinal characteristics of the subjects with respect to moral and ethical outlook and religious participation.

Scale 11: Interest in Help

Scale 11 is comprised of 25 items. The scale is a measure of an individual's interest in receiving help from the institutions of school and church.

This scale gave a highly significant difference between users and non-users of drugs. The t values for the scale and for each of the 25 items within the scale with the exception of items 366 and 370 were significant. One could thereby conclude that this scale can highly discriminate between the two groups.

Non-users also had higher mean values on all of the items in the scale, indicating, thereby, a greater degree of interest in receiving help from both the church and the school. The authors, Strommen and Gupta, stated that the relationship between declared interest and actual participation is strong. If this is the case, it could be concluded that drug users' lessened interest is an indication of their greater degree of disaffiliation from the above institutions.

This finding is in keeping with those reported in the literature. Kosviner (1968), Blum (1969b) and Gormely (1970) each reported drug users to be less involved in school activities

TABLE 13

RESULTS OBTAINED FOR SCALE 11
INTEREST IN HELP

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	141.65	168.59	-5.872	.000**	1.179
ITEMS					
351	5.63	6.94	-1.458	.000**	1.458*
352	5.88	6.69	-1.314	.016*	1.314
353	5.93	6.89	-1.117	.004**	1.117
354	5.60	6.63	-1.500	.001**	1.500*
355	5.48	6.90	-1.349	.000**	1.349
356	5.95	6.93	-1.358	.010*	1.358
357	5.51	6.51	-1.588	.002**	1.588*
358	5.48	6.77	-1.167	.001**	1.167
359	5.53	6.60	-1.306	.002**	1.306
360	5.94	6.98	-1.182	.004**	1.182
363	5.71	6.85	-1.734	.002**	1.734**
364	5.24	6.56	-1.777	.000**	1.777**
365	5.23	6.97	-1.303	.000**	1.301
366	6.25	6.61	-1.388	.145	1.388
367	5.97	6.79	-1.066	.005**	1.066
368	5.63	6.68	-1.139	.003**	1.139
369	5.71	6.59	-1.185	.008**	1.326
370	6.07	6.56	-1.605	.074	1.185
371	5.39	6.46	-1.040	.000**	1.605**
372	5.26	6.61	-1.018	.000**	1.040
376	5.58	6.81	-1.429	.003**	1.429*
377	6.06	6.74	-1.449	.010*	2.190**
378	5.87	7.06	-1.449	.002**	1.449*
379	5.34	6.54	-1.251	.000**	1.238

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

including extra-curricular activities. With respect to church involvement, the research literature is replete with evidence of a negative correlation between church participation and drug use.

Inasmuch as the subjects chosen for this research were church affiliated youth, it is somewhat revealing that there is a significant difference between the two groups on this scale. Especially, since on scale 10 there was some indication that both groups had concerns about their relationship with God. The results of this scale would suggest that drug users, even though concerned about their spiritual relationship, and even though affiliated to the church, do not perceive the institution as adequate enough to meet their needs.

This reticence to receive help from either school or church is further evidence that drug users tend to be more aloof from societal customs and institutions. They appear to be more individualistic in their life style.

The F value for the scale was not significant. Of the 25 items within the scale, nine gave significant differences between the groups. Higher variances were from users on 19 items within the scale. Although the scale as a whole did not give significant difference in variances, one could conclude on the basis of individual items that users are more heterogeneous in their attitudes about receiving help from either school or church when compared to non-users.

Scale 12: Maturity of Values

The t ratio on scale 12, which is a measure of maturity of values, was not significant. The scale contains seven items,

TABLE 14

RESULTS OBTAINED FOR SCALE 12
MATURITY OF VALUES

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	20.02	20.09	0.081	.963	1.065
ITEMS					
224	2.93	2.64	2.009	.045*	2.101**
230	2.62	2.85	-0.912	.362	1.159
234	2.88	2.77	0.475	.635	1.111
235	3.69	3.23	1.968	.050*	1.288
236	2.57	2.91	-1.384	.168	1.135
238	2.88	2.81	0.471	.638	1.142
240	2.45	2.88	-1.748	.082	1.122

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

only two of which gave significant difference between the groups. This would indicate a relative lack of confidence by the members of the two groups that their behavior is able to control their future. It can also be inferred that neither group is able to easily delay immediate drives and pressures in order to gain a future goal.

The findings stand in contradiction to those of Sinha (1972), reported earlier, who found drug users less confident that their behavior was effective in controlling future events. The contradiction might be accounted for in the kind of populations chosen. The population of this research is an adolescent group, whereas Sinha's was an older group. Adolescents are typified by their impetuous actions, whereas in adulthood, the majority consider the future in the light of the present actions.

The F value for the scale was not significant, however, that for item 224 within the scale was highly significant.

Scale 13: Orientation for Change

This scale, which is an assessment of an individual's willingness to welcome and initiate change in the social and political realm, gave highly significant difference in means.

As can be seen from Table 15, with the exception of three items, all the others gave significant t values. The means on the items, with one exception, were in favour of the user group.

The generally higher means of the user group indicate that users tend to be more oriented to change in the political, social and educational realms. Specifically, users saw their school

TABLE 15

RESULTS OBTAINED FOR SCALE 13
ORIENTATION FOR CHANGE

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	47.27	38.61	6.599	.000**	1.556*
ITEMS					
161	4.51	3.81	3.207	.000**	1.165
162	4.20	3.76	2.879	.004**	1.030
163	4.69	3.33	6.080	.000**	4.047**
164	4.48	3.36	4.094	.000**	1.188
165	5.55	3.67	8.105	.000**	1.943**
166	4.02	3.36	2.478	.014*	1.337
167	3.15	3.33	-1.072	.285	1.053
169	4.76	3.24	4.921	.000 **	1.742**
171	4.46	3.34	3.965	.000**	1.457*
172	3.59	3.54	0.328	.743	1.209
174	3.87	3.86	0.026	.979	1.268

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

courses irrelevant to their own world more so than non-users. They also expressed a greater affinity for "student power", more vigorously expressed an anti-war sentiment and saw student protests in a more favourable light. As well, they expressed a more permissive stance towards sexual relationships before marriage.

The literature on drug research gives ample evidence in keeping with such findings. Drug users are often described as avant garde in political and social directions. (cf. chapter 2). Hence, the results found on this scale were expected.

A correlation between personal values and social change appears to be evident. Drug users, who have been found to have less internalization of the values of society are more open to change in the social fabric. Their interest in change of present social structure appears related to their lack of acceptance of the current values. Non-users, on the other hand, who have a high degree of internalization of these values, are interested in the continuation of the status quo.

The F ratio between the variance of the groups was highly significant. On the scale, the user group had larger variance. Five of the eleven items within the scale also gave significant F. On each of the items but on one, the user group exhibited larger variance. The individual items which gave significant F related to attitudes toward premarital intercourse, student protest, compulsory military service and law enforcement.

TABLE 16

RESULTS OBTAINED FOR SCALE 14
MORAL RESPONSIBILITY

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	41.20	49.20	-6.866	.000**	1.954**
ITEMS					
221	4.21	4.95	-2.842	.005**	1.026
222	4.18	5.13	-4.242	.000**	1.725**
223	4.26	5.20	-3.998	.000**	1.373
225	3.96	5.11	-4.410	.000**	1.038
226	4.11	4.45	-1.462	.145	1.022
227	3.56	5.03	-5.327	.000**	1.847**
229	4.07	4.99	-4.038	.000**	1.197
231	4.53	4.88	-1.554	.122	1.901**
233	3.59	4.71	-4.442	.000**	1.470*
239	4.73	4.74	-0.099	.921	1.106

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

Scale 14: Moral Responsibility

Scale 14 is a measure of one's attitude in the moral realm. It attempts to measure one's attitude with respect to other's needs.

As seen from table 16, the scale gave highly significant difference between the groups. The t value for the scale, and also that for the individual items within the scale, with the exception of three out of ten items, were all significant.

Users had a lower mean on the scale as well as on each of the items within the scale. These results indicate that drug users express a more solipsistic attitude with regard to involvement in the needs of others. It would appear that users have a privatistic attitude. The non-users exhibited attitudes which were more "other directed". They expressed standards of right and wrong which have referrents outside of the individual. They were distinguished from the users in that they more often accepted the precept that present decisions effect their future happiness. They also expressed more evidence of goal directedness.

The F ratio between the variances was found to be highly significant in favour of non-users. These results give added support to the hypothesis, previously stated, that drug users are more solipsistic than non-users. The lower means combined with a smaller degree of variance for users leads to this conclusion.

Scale 15: Meaningful Life

Scale 15, titled Meaningful Life, is related to definition of lifestyle.

TABLE 17

RESULTS OBTAINED FOR SCALE 15
MEANINGFUL LIFE

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	105.43	116.04	-6.084	.000**	1.514*
ITEMS					
241	5.85	6.69	-3.392	.001**	1.232
242	6.31	7.21	-3.091	.002**	1.132
243	6.87	6.65	0.872	.384	1.196
244	6.46	7.00	-2.046	.042*	1.087
245	6.79	7.27	-2.660	.008**	1.482*
246	6.64	7.15	-3.316	.001**	1.704**
247	6.01	6.46	-1.749	.082	1.011
248	5.69	7.18	-4.802	.000**	1.458*
249	6.32	6.67	-2.096	.037*	1.092
250	5.67	6.06	-1.024	.306	1.110
251	5.45	6.48	-3.631	.000**	1.164
252	5.39	6.48	-4.590	.000**	1.014
253	6.31	6.62	-3.090	.002**	2.488**
254	5.88	6.49	-1.851	.065	1.089
258	6.60	7.23	-2.424	.016*	1.002
259	6.42	6.75	-1.162	.246	1.086
260	6.77	7.31	-2.338	.020*	1.390

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

Significant differences between groups were found on the scale as a whole. Also on 12 of the 17 items within the scale, t values were significant, with the non-user group having higher means on all of the items within the scale.

The following four items, ranked in order, were the first four choices of values listed by non-users.

(1) Family happiness - Item 260
(2) Meaningful work - Item 245
(3) Skill in doing what is important - Item 258
(4) Service to others - Item 242

The higher means on these items indicate that the non-users more often accorded importance to values which place emphasis upon service to others, family happiness, meaningful work and skill in work which they value as important.

Users ranked the following four as important values. (In order of importance)

(1) Recognition - Item 243
(2) Meaningful work - Item 245
(3) Family happiness - Item 260
(4) Wisdom - Item 246

There is some overlap in the choices which users and non-users made. However, the ranking of these choices is not similar as noted above. Non-users list family happiness as their primary choice, whereas users rank recognition as their first choice. Both groups chose meaningful work as a second value.

Scale 16: Religious Participation

Scale 16 assesses the degree of involvement by the participants in activities of the religious institution as well as their response to the declared values and beliefs upheld by it.

TABLE 18

RESULTS OBTAINED FOR SCALE 16
RELIGIOUS PARTICIPATION

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	69.75	83.92	-8.480	.000**	1.057
ITEMS					
183	5.92	6.55	-3.613	.000**	1.270
186	4.64	6.66	-7.645	.000**	1.657
187	5.75	6.43	-2.741	.007**	1.026
190	4.77	6.17	-4.774	.000**	1.356
206	5.94	6.05	-0.829	.408	1.001
208	6.43	6.11	3.718	.000**	3.168**
211	6.02	6.43	-2.193	.029*	1.113
216	6.26	6.77	2.644	.009**	1.007
296	4.42	6.12	-6.171	.000**	1.735**
297	5.16	6.92	-6.167	.000**	1.383
298	4.98	6.66	-6.144	.000**	1.389
299	4.35	6.70	-6.779	.000**	1.071
300	5.12	6.35	-4.604	.000**	1.103

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

The scale gave highly significant t ratio for the two groups. The t ratio for 12 of the 13 items was also significant.

The users had lower means on all the items of the scale except item 208--related to family devotions in the home. On that item, users more often indicated that their families held to such a practice than did non-users. Results found on the scale would indicate, however, that the users are less actively involved in the activities of the religious establishment. Users also tended to hold a more agnostic stance towards the declared values of the institutions.

This was an expected finding. The literature on drug research has clearly established this negative relationship between drug use and church involvement. The results found on this scale are also consonant with those from scale 11.

The F ratio between the variances of the two groups did not show a significant difference between groups on the scale. However, on three of the items there was a significant F ratio.

Scale 17: Social Action

Scale 17, titled Social Action, is closely akin to scale 14. Whereas the latter measures attitudes to others' needs, this scale is a measure of one's actual involvement in meeting those needs. The scale gave highly significant difference between the two groups, in favour of non-users. The mean for each of the items, with the exception of two (276,277), was higher for non-users. The latter expressed greater involvement in the needs of others, indicating that the feeling of moral responsibility (scale 14)

TABLE 19

RESULTS OBTAINED FOR SCALE 17
SOCIAL ACTION

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	51.84	56.10	-3.362	.001**	1.000
ITEMS					
271	6.37	6.77	-1.106	.269	1.138
272	5.47	6.87	-4.012	.000**	1.075
273	6.28	7.02	-2.548	.011*	1.545*
274	6.61	7.23	-2.305	.022*	1.155
275	6.65	7.28	-2.658	.008**	1.118
276	6.98	6.85	0.359	.720	1.040
277	6.97	6.90	0.198	.843	1.112
415	6.51	7.19	-2.420	.016*	1.095

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

towards another is, in fact, put into practice by concrete activities. Scale results would confirm that drug users are more privatistic and solipsistic, not only in regard to attitude (Scale 14) but also in action.

The drug users' less involvement with others in a helping role may be related to the fact that they lack interpersonal skills (Pugh 1972) and personal intimacy (Blum 1969a). If one is fearful of personal involvement and also lacks appropriate skills for interpersonal relationships, one would expect a lessened degree of involvement with others.

The F ratio between the variances of the two groups was not significant, on this scale as a whole. Only on one item of the scale, number 273, was there a significant difference.

Scale 18: Self Regard

Scale 18 is a measure of Self Regard. The scale did not show significant differences between the groups.

Scale 5, Lack of Self Confidence, and scale 7, Personal Faults, gave significant differences between the groups. These scales appear to measure one's behavior in relationship to the expectations of others, whereas the present scale seems to be a measure of one's self evaluation or concept rather than one's actual behavior. In this context, it is understandable that the former scales could show significant differences between groups, whereas the latter scale did not.

Scale 19: Human Relations

Scale 19, purported to measure an understanding of the equality of all men before God, showed highly significant differ-

TABLE 20

RESULTS OBTAINED FOR SCALE 18
SELF REGARD

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	86.28	89.23	-1.743	.083	1.029
ITEMS					
1	6.49	6.92	-1.735	.084	1.239
5	6.91	6.77	0.630	.529	1.032
7	7.24	6.99	1.404	.161	1.238
9	6.44	6.67	-0.965	.335	1.192
11	6.36	6.91	-2.490	.013*	1.537*
13	6.82	6.84	-0.080	.937	1.295
14	6.38	6.94	-1.923	.056	1.222
15	6.50	6.79	-0.938	.349	1.198
16	7.10	7.09	0.045	.964	1.017
17	6.36	6.81	-2.153	.032*	1.211
18	6.35	6.65	-1.062	.289	1.139
19	6.68	7.15	-2.450	.015*	1.439*
20	6.66	6.70	-0.140	.889	1.006

N = 121 Users, 124 Non-Users
* P .05
** P .01

TABLE 21

RESULTS OBTAINED FOR SCALE 19
HUMAN RELATIONS

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	73.21	77.44	-2.814	.005**	1.084
ITEMS					
264	5.93	6.56	-2.154	.032*	1.224
266	6.31	6.23	0.372	.710	1.128
270	6.28	6.21	0.249	.804	1.352
392	5.75	6.52	-2.385	.018*	1.043
396	5.79	6.45	-2.197	.029*	1.118
399	5.77	6.24	-1.491	.137	1.034
405	6.16	6.98	-2.467	.014*	1.486*
406	6.55	6.52	0.075	.940	1.023
410	6.34	6.42	-0.369	.712	1.207
412	6.16	6.27	-0.466	.642	1.019
418	5.88	6.40	-1.277	.203	1.053

N = 121 Users, 124 Non-Users
* P< .05
** P< .01

difference between the means of the groups. The mean was larger for non-users than for users, showing that the former have a higher degree of sensitivity and compassion toward those who suffer assaults of prejudice.

Four of the eleven items within the scale gave significant t values, again showing that non-users tend to look upon their fellow human beings with more equanimity.

This finding would support those of Wozny (1971) who found that marijuana users measured higher degrees of closemindedness. Indirect support for the finding is also available in the research of Mordoff (1972) and Lombardi (1967). They both reported that users had higher Pd. values on the MMPI, suggesting that the users were more suspicious of the motives of others. Such a paranoid suspicion can be seen as being basic to prejudices.

The F ratio between the variances of the groups was not significant for the scale as a whole. The same applied to each of the items.

Scale 20: God Awareness

Scale 20 deals with matters related particularly to one's subjective experience of faith.

The scale showed significant difference between the two groups. The same held true for 13 of the 15 items within the scale. Non-users had uniformly higher means, suggesting that their personal religious experiences had more significance for them than was the case for users. Non-users indicated a greater feeling of the awareness of God's presence in their lives. They also affirmed a stronger belief in the efficacy of personal

TABLE 22

RESULTS OBTAINED FOR SCALE 20
GOD AWARENESS

VARIABLES	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	85.59	105.52	-7.272	.000**	1.123
ITEMS					
279	5.32	6.84		.000**	1.308
381	6.40	6.83	-1.907	.058	1.101
383	5.36	6.74	-4.377	.000**	1.445*
384	4.94	7.48	-6.086	.000**	1.565*
387	6.29	6.65	-1.492	.137	1.183
388	5.29	7.07	-6.045	.000**	1.566*
393	5.81	6.47	-2.652	.009**	1.002
400	5.45	7.10	-3.962	.000**	1.218
401	5.98	7.50	-3.995	.000**	1.550*
411	5.94	7.32	-4.066	.000**	1.112
414	5.83	7.08	-3.715	.000**	1.001
416	5.32	7.20	-5.259	.000**	1.294
417	6.59	7.24	-2.281	.023*	1.338
419	5.34	7.10	-4.714	.000**	1.183
420	5.74	6.90	-4.116	.000**	1.542*

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

religious expression and practice. Users on the other hand tended to practice religious piety with less vigor.

The results on the scale confirm those previously found on scale 16. Drug users do not have the same degree of involvement with the church as do non-users.

The F ratio between the variances of the two groups was not significant for the scale as a whole. However, it was significant for four items within the scale.

Scale 21: Biblical Concepts

This scale is a measure of Biblical Concepts. The intent here is to distinguish those who adhere to a more humanistic faith from those who hold to a particularistic expression of faith.

The scale gave highly significant measure of difference between the two groups. The non-users had a higher mean on the scale as well as on all items within the scale with the exception of item 404, indicating that users are less orthodox in their beliefs. They hold to a more humanistic expression of religious faith, and they appear to adhere less to a particularistic expression of faith. This finding would indicate that they are less in affiliation with the religious community out of which they were sampled than the non-users.

The F ratio between the variances of the two groups was not significant on the whole scale, although two items within it were.

TABLE 23

RESULTS OBTAINED FOR SCALE 21
BIBLICAL CONCEPTS

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	24.83	21.03	2.649	.009 **	1.263
ITEMS					
385	3.26	3.11	0.382	.703	1.144
386	3.11	2.65	1.325	.186	1.233
389	3.40	3.08	0.862	.389	1.008
390	2.82	2.31	1.565	.119	1.216
394	3.56	2.05	4.165	.000**	2.006**
395	2.90	2.86	0.183	.855	1.025
397	3.46	2.41	2.921	.004**	1.548*
404	2.31	2.55	-1.028	.305	1.142

N = 121 Users, 124 Non-Users
* P < .05
** P < .01

SUMMARY

In summary, then, the results from the Concern and Belief Scales would indicate that drug users as a group reflect a more open attitude toward change in the social order, are less involved in the needs of people within that order, and appear less compassionate and sensitive towards the needs of others. They are also less involved in the activities of the religious establishment. Their beliefs are less comforming to creedal positions of particular denominations, and their private religious practice and expression have less meaning for them. As well, they express a more humanistic religious stance.

The two groups are not significantly different in attitudes regarding self acceptance, or in values which indicate a maturity and independence of actions.

PERCEPTION SCALES

There are three scales in this category. The intent of the scales is to measure how the individual perceives the youth group to which he belongs, how the adults in the congregation are perceived and how the individual's own family is perceived in relation to the family's response to the needs of the community.

Scale 22: Youth Group Vitality

Scale 22 measures how the individual feels about the youth group to which he belongs. In a sense, it is a measure of his feelings of belongingness to the group.

The scale gave a highly significant difference between the groups. The non-users had a higher mean on the scale indicating that they feel much more a part of the group to which they belong.

Of the ten items within the scale, five showed either significant or highly significant differences between the groups. On each of the items, with the exception of item 327, the non-users had higher means. The findings indicate that the drug user finds himself less included in the youth group and that he also attaches less importance to the group and its activities.

These findings support those previously mentioned with regard to users having more privatistic attitude. They have been found to be less involved in the needs of others, less concerned with participation in the activities of the religious establishment and also the school. The finding on this scale further sharpens the fact of alienation on the part of drug users.

TABLE 24

RESULTS OBTAINED FOR SCALE 22
YOUTH GROUP VITALITY

VARIABLE	USER MEAN	NON USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	52.99	59.80	-3.239	.001**	1.143
ITEMS					
321	5.17	5.63	-1.240	.216	1.115
322	5.44	6.33	-2.696	.008**	1.141
323	5.24	6.12	-2.385	.018*	1.051
324	5.68	6.26	-1.417	.158	1.021
325	4.74	5.15	-1.065	.288	1.099
326	4.85	5.72	-2.389	.018*	1.009
327	6.03	5.94	0.338	.736	1.068
328	5.56	6.29	-2.057	.041*	1.014
329	4.83	6.15	-3.635	.000**	1.076
330	5.45	6.21	-2.319	.021*	1.266

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

The F ratio between the variances of the two groups was not significant for the scale as a whole. The same applied to each of the items.

Scale 23: Adult Caring

Scale 23 measures how the individual perceives the adults in his congregation.

The t ratio was highly significant. The scale means indicate that the non-users perceived the adults in the group in a much more positive way than did the users.

On each of the items within the scale, users had a lower mean, reconfirming the evidence suggested by the scale result. Eight of the 11 items within the scale gave highly significant t values.

One could conclude, therefore, that the drug users perceive the adults in the congregation in a more negative way: as caring less about them or about others who are in need in the community.

The results would appear to reflect the users' general stance of aloofness from society previously discussed. It would also confirm further the findings from scale 11. It was found that the users were less interested in receiving help from the church. It would appear that their reticence to receive help is related to their negative evaluation of the adults who are members.

The F ratio between the variances of the two groups was not significant for the whole scale, although on three of the items there was a significant difference.

TABLE 25

RESULTS OBTAINED FOR SCALE 23
ADULT CARING

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	59.73	71.33	-3.239	.000**	1.365
ITEMS					
305	5.45	6.32	-2.663	.008**	1.344
306	5.12	6.67	-4.280	.000**	1.795**
307	5.42	6.85	-4.103	.000**	2.002**
309	4.88	6.48	-4.111	.000**	1.198
310	5.71	5.86	-0.472	.637	1.007
312	5.58	6.59	-2.850	.005**	1.470
313	5.60	6.82	-3.162	.002**	1.120
314	5.35	6.16	-2.283	.023*	1.379
317	5.11	6.45	-4.265	.000**	1.347
318	629	6.73	-1.394	.164	1.128
320	5.22	6.39	-3.244	.001**	1.293

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

Scale 24: Family Social Concerns

This scale is an assessment of how the individual perceives his family responding to human need. There are eight items within the scale.

The scale gave a highly significant t ratio. The scale mean was in favour of the non-users. Also, on seven of the eight items within the scale, the non-user group had higher means. Four of the individual items gave highly significant t, the rest did not.

Results indicate that users perceive their parents and family as being less involved in the needs of others in their community. They see their parents as less informed about social issues and being less active in alleviation of distress when they are aware of difficulties of someone else. In addition, users do not perceive their parents as good examples for them to follow in matters of social concern.

The F ratio between the variances of the two groups was not significant for the whole scale. However, two of the items gave a significant F value.

TABLE 26

RESULTS OBTAINED FOR SCALE 24
FAMILY SOCIAL CONCERNS

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	46.62	52.33	-3.888	.000**	1.034
ITEMS					
331	6.68	6.37	1.021	.308	1.090
332	6.04	6.00	0.149	.882	1.082
334	5.10	6.57	-3.940	.000**	1.466*
335	5.83	7.00	-2.849	.005**	1.254
336	5.79	5.92	-0.406	.685	1.011
337	5.46	6.85	-4.144	.000**	1.746**
338	5.56	7.00	-3.282	.001**	1.416
339	6.17	6.62	-1.618	.107	1.007

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

SUMMARY

Overall, users have a more negative attitude toward their youth group, toward the congregation or synagogue to which they belong, and toward their families, when viewed in light of social concerns. Results would tend to indicate that they are more aloof from the institution and they are less optimistic about the individuals within it. It would also appear that they are more pessimistic about their family's salutary effect upon them.

VALIDITY SCALE

Scale 25: Frankness

This scale was not a significant measure of difference between the groups. Of the 15 items contained within the scale, only six gave significant t.

Three of these items gave difference in favour of users; they more often having indicated they had cheated in school, taken things not theirs, and failed to resist temptation. On three items the differences were in favour of non-users; they more often expressed concern about thoughts which they were too ashamed to tell anyone else, they expressed higher degrees of concern over regretful activities, and they more often confessed to gossiping more often than did drug users. Thus, users as a rule, confessed to weakness where monetary value was concerned, whereas non-users where social value was involved.

TABLE 27

RESULTS OBTAINED FOR SCALE 25
FRANKNESS

VARIABLE	USER MEAN	NON-USER MEAN	t VALUE	PROB. t	F VALUE
SCALE	119.76	118.82	0.786	.433	1.098
ITEMS					
141	8.29	8.40	-0.422	.673	1.110
143	8.69	8.10	3.362	.000**	2.691**
144	7.17	7.60	-2.029	.043*	1.861**
145	7.88	8.36	-2.313	.021*	1.519*
146	8.59	7.43	7.039	.000**	2.167**
147	8.37	8.10	1.167	.244	1.342
148	8.29	7.99	1.234	.218	1.334
149	7.54	7.83	-1.586	.114	2.616**
151	7.55	7.56	-0.079	.937	1.021
152	7.47	7.68	-1.982	.049*	1.438*
153	8.44	8.44	-0.037	.970	1.017
154	7.83	7.81	0.266	.791	1.162
158	7.90	8.42	-1.964	.051	1.699**
159	7.60	7.71	-0.596	.552	1.341
160	8.13	7.39	3.207	.002**	1.429

N = 121 Users, 124 Non-Users
* $P < .05$
** $P < .01$

SUMMARY

Findings on the scales suggest some significant differences between users and non-users of drugs.

Using the t test for differences between the independent samples, significant results were found on 17 scales. On the remaining eight scales, the t ratio was non-significant.

General analysis of the scales indicates that only five of the 10 Concern Scales, nine of the 11 Belief and Value Scales, and all the three Perception Scales were significant measures of differences between the user and the non-user groups. These general findings indicate that of the three types of scales, the concern scales have the least ability to discriminate between the groups.

More specifically, users indicated more fragmentation of the family unit. They appeared to come from families where divorce or separation was more prevalent, where illness, unemployment, emotional stress, death and such negative factors were more often present. They experienced less mutuality in the home, and expressed a greater lack of understanding and trust by the parents. They perceived their families as being less caring and less involved in community needs.

Users appeared to be less concerned with social expectations and customs. They evidenced less concern to act on behalf of others, adopting a more solipsistic and individualistic attitude. At the same time, they adopted a more liberal stance toward change in the customs and traditions of society.

One can perhaps conclude that drug users, feeling less involved with the needs of others, feel less compunction to uphold the traditions and customs of society. Alternately, one can postulate that the non-users experience a greater feeling of mutuality in their families, an experience which they extend to the larger society. They feel a greater degree of constraint from the society and also appear to be more concerned with the needs of others in it. As well, since they are more involved in its life, they are more adverse to changes in its customs and traditions. Not only are they more involved in the society, but they also perceive their families similarily involved.

Users are less inclined to religious participation and practice. They express a more agnostic position vis-a-vis the established creedal positions of the church or synagogue, and they are less satisfied with the activities and less identified with the members of the institution. They reflect a feeling of skepticism regarding the above. In a word, they indicate an attitude which is "anti-establishment".

NON-SCALE ITEMS

The responses on a few selected items out of the 140 which were not included in the scales were also analyzed. The results appear below.

The data which was on a nominal scale was analyzed using the Chi-square. However, some of the responses can be regarded as being ordinal, some on an interval scale. In such instances t test was also used in analysis, sometimes alone, yet others in addition to .

Item 184: Absence from home in the evenings

Subjects were asked how many evenings per week they spent out of their homes.

TABLE 28

EVENINGS PER WEEK ABSENT FROM HOME:
Classified by users and non-users

NUMBER OF EVENINGS	USERS		NON-USERS	
	NO.	%	NO.	%
1 or Less	9	7.4	23	18.7
2	17	14.0	39	31.7
3	28	23.1	24	19.5
4	28	23.1	21	17.1
5	21	17.4	8	6.5
6-7	18	19.4	8	6.5

$\chi^2 = 25.735$ df = 5 $P < .001$
$t = 5.096$ df = 243 $P < .001$
(User $\bar{X} = 3.74$; Non-user $\bar{X} = 2.78$)

Drug users spent less time in their homes during the evenings than did non-users. Whereas 50% of the non-users reported two or fewer evenings away from the home per week, only 21% of the users so reported. Moreover, 36.8% of the users spent five or more evenings absent from the home each week, while only 13% of the non-users fell in this category.

This finding can be interpreted in conjunction with those from Scale 2. In the latter, users had expressed a greater degree of concern over lack of parental trust and understanding. Absence from the home, therefore, appears to be positively correlated with users' perceptions of their parents as less understanding and trusting. This finding is another indication of the users' lack of mutuality with their parents.

Item 182: How many times in a month are you usually absent from school?

TABLE 29

DAYS ABSENT FROM SCHOOL PER MONTH:
Classified by users and non-users

DAYS ABSENT PER MONTH	USERS		NON-USERS	
	NO.	%	NO.	%
0-1	53	44.2	100	82.0
2-3	26	21.7	15	12.3
4-5	15	12.5	4	3.3
6-7	9	7.5	1	0.8
8+	10	8.3	2	1.6
Don't attend	7	5.8	0	0.0

$\chi^2 = 42.477$ df = 5 $P < .001$
$t = 6.637$ df = 243 $P < .001$
(User $\bar{X} = 2.30$; Non-user $\bar{X} = 1.26$)

Users reported a greater degree of school absence. While 34.1% of the users reported three or more days of absence from school per month, only 5.7% of the non-users reported the same. A full 82.0% of the non-users reported one or less absence per month, as contrasted to 44.2% of the users!

These results are in agreement with the research related to drug use and school participation discussed in Chapter II. A fuller discussion of the implications will follow the presentation of the results from other items related to school.

Item 189: Which of the following best describes the kind of grades or marks you get in school?

TABLE 30

A COMPARISON OF SCHOOL GRADES PERCEIVED BY USERS AND NON-USERS OF DRUGS

GRADES	USERS		NON-USERS	
	NO.	%	NO.	%
Excellent	7	5.9	16	12.9
Above Average	27	22.7	49	39.5
Average	50	42.0	44	35.5
Below Average	16	13.4	12	9.7
Very Low	14	11.8	3	2.4
Don't Attend	5	4.2	0	0.0

$\chi^2 = 22.868$ df = 5 $P < .001$
$t = 4.322$ df = 243 $P < .001$
(User $\bar{X} = 3.10$; Non-user $\bar{X} = 2.49$

It is acknowledged that the answers to the above question are not a school record, but a self-perception by the respondents. Hence, it cannot be ascertained, with the data in hand, what the

actual state of nature is regarding the subjects' marks. However, it is a pedagogical principle that self-perception is a strong indicator of a student's actual academic status.

The majority (52.4%) of the non-users assessed themselves as having above average or excellent grades, as compared to only 28.6% of the users. As seen from Table 30, a far larger number of the users reported grades below average. While five of the users did not attend school, none of the non-users fell in this category.

Results from this item, coupled with those from item 182, suggest that the users' involvement in the school is less intense and productive than that of non-users. These findings are consonant with those reported earlier (Smart and Fejer, 1969).

Item 193: What type of school do you attend?

The type of school one attended was a discriminating variable. The alternatives are listed in Table 31.

TABLE 31

TYPE OF SCHOOL ATTENDED:
by users and non-users of drugs

TYPE	USERS		NON-USERS	
	NO.	%	NO.	%
Public	49	40.5	92	74.2
Religiously Sponsored	43	35.5	26	21.0
Private	11	9.1	6	4.8
Vocational or Technical	10	8.3	0	0.0
Other	3	2.5	0	0.0
Don't Attend	5	4.1	0	0.0

$\chi^2 = 36.741$ df = 5 $P < .001$

74.2% of the non-users attended a public school whereas only 40.5% of the users did so. However, a significantly larger percentage of the users attend a religiously sponsored or private school (44.6%) than did the non-users (25.8%). The positive association between enrollment in a religiously sponsored school and drug use seems inexplicable. One cannot assume that this is a causal relationship. However, it is difficult to account for the finding except that religiously sponsored and private schools are possibly used as a last resort by parents to place deviant children unable to perform adequately in the public school system. This needs further research, however.

It is also of interest to note that drug users were found to be less traditional or orthodox in their religious beliefs (Scale 21), they exhibited less participation in religious practice (Scale 16), yet they more often have been found to be enrolled in a religiously sponsored school. This negative correlation between drug use, religious belief and piety and the positive correlation between drug use and enrollment in a religiously sponsored school suggests that probably the society is using such schools more as a resource for handling problem children than as a place in which to propagate the faith. It could also mean that a negative attitude to religion and parochial schools is responsible for drug usage.

The results from the preceding three items suggest that drug users have more difficulties with school related matters than do non-users. They are more truant from school, they perceive themselves more often in the lower levels of academic achievement,

and more often they are enrolled in the parochial school system. The reasons for these differences cannot be adequately posited on the basis of this data. However, the greater family fragmentation of the users (Scale 3), their greater apathy in receiving help from social institutions (Scale 11), and their inability to see their school courses as related to their life experience (Scale 13) would all tend to mitigate against satisfactory academic performance.

Item 188: My average weekly income is (including allowance)

TABLE 32

WEEKLY INCOME OF
USERS AND NON-USERS OF DRUGS

AMOUNT	USERS		NON-USERS	
	NO.	%	NO.	%
Less than $1.00	1	0.8	8	36.3
$1.50 - 3.75	4	3.3	6	30.6
$3.75 - 5.00	8	6.6	9	14.5
$5.00 - 15.00	14	11.6	18	7.3
$15.00 - 24.00	30	24.8	38	4.8
$24.00 plus	64	52.9	45	6.5

$\chi^2 = 22.448$ df = 5 $P < .001$

$t = 4.339$ df = 243 $P < .001$
(User $\bar{X} = 3.69$; Non-user $\bar{X} = 2.81$)

Drug use and income gave positive association. The differences in income were particularily noticeable at the extremes of income. While 36.3% of the non-users reported an income of less than one dollar, only 0.8% of the drug users reported the same. On

the other hand, 52.9% of the users reported an income of over $24.00 per week as compared to only 6.5% of the non-users.

This difference in income cannot be attributed to variables relative to socio-economic status, such as occupation of main wage earner, or parental income, or educational status of the parents, as these items did not give significant difference between groups. The larger income of users, therefore, has to be accounted for by factors other than family income or social status.

Two factors appear to be explanatory of this disparity in income. One is related to lifestyle, the other to sex differences. It is known that people heavily involved in drug use are also frequently involved in trafficking in drugs to support the habit. Other delinquent activities such as selling of stolen goods and promiscuity for monetary considerations are also known methods of supporting the habit. It is of interest to note that on Scale 25, previously discussed, users confessed to having been more often involved in taking things not theirs, whereas, non-users' confessions of guilt were more often related to transgressions in the area of social values. Those findings would add corroborative evidence to the suggestion that users often are involved in illegal activities to support their habit.

The second factor which may account for the higher income amongst users is the predominance of males in the user group (Table 33).

TABLE 33

USERS AND NON-USERS OF DRUGS
CLASSIFIED BY SEX

GROUP	SEX			
	MALE		FEMALE	
	NO.	%	NO.	%
User Group	91	75.8	29	24.2
Non-user Group	46	37.1	78	62.9

^{2} = 35.608 df = 1 P .001

It was previously mentioned that of the 7050 youths surveyed 3222 or 45.7% were male. However, of the number from that population who were drug users, 75.8% were male (Table 33). In comparison, the female population in the user group was grossly underrepresented when compared to the total population surveyed (24.2% vis-a-vis 54.3%).

This larger representation of males amongst drug users may be a second factor accounting for the higher income amongst members of the user group since male teen-agers more often are able to work in jobs which are better paying than do females of the same age. Thus, male predominance amongst users would escalate the income of that group.

Items 3, 157 and 413: Outlook on life

These three items have been grouped as one since they are essentially asking the same question. The items with the results are listed below.

.3. Man can have hope for the future

$t = 2.241$ $df = 243$ P .05

157. I have sometimes considered suicide

$t = -4.103$ $df = 243$ P .001

413. I often feel joy and exhilaration about life

$t = 4.649$ $df = 243$ P .001

Results indicate that users have a more pessimistic outlook on life. They have more often considered suicide, expressed a heightened sense of futility both in their own lives and also with respect to society than have non-users.

This finding has support in the research of Gerard and Kornetsky (1954), Blum (1972), McGlothlin and West (1968). They all found users to be characterized by feelings of pessimism and purposelessness.

One could postulate that users, lacking a sense of mutuality, as previously stated, will also lack a sense of mission. The findings suggest that drugs may, therefore, be a form of escape inward in order to establish a modicum of meaning.

RELIGIOUS AFFILIATION

Subjects were asked to declare their religious affiliations. It is of interest to compare the affiliations of the total population surveyed with the samples of drug users and non-users.

TABLE 34

RELIGIOUS AFFILIATION OF CHURCH YOUTHS POPULATION, AND ALSO THAT OF USERS AND NON-USERS OF DRUGS

DENOMINATION	POPULATION		USERS		NON-USERS	
	NO.	%	NO.	%	NO.	%
Baptist	1955	27.7	31	25.8	38	30.6
Episcopal	593	8.4	4	3.3	9	7.3
Lutheran	349	5.0	1	0.8	5	4.0
Methodist	578	8.2	3	2.5	11	8.9
Presbyterian	61	0.9	0	0.0	1	0.8
United Church of Christ	30	0.4	0	0.0	0	0.0
Orthodox	102	1.4	0	0.0	1	0.8
Roman Catholic	1910	27.1	44	36.7	30	24.2
Jewish	13	0.2	0	0.0	0	0.0
Other	61	0.9	2	1.7	1	0.8
Don't Attend	1397	19.8	35	29.2	28	22.6
Missing	1	0.0	1		0	
TOTAL	7050	100.0	121	100.0	124	100.0

As expected the non-user group is a good approximation of the total population. However, as can be seen in Table 33, those affiliated with the Roman Catholic Church, as well as those not attending church, are over-represented in the drug-user category (approximately 10% greater than in the total population). The Methodist and the Episcopal groups are marginally under-represented in the user category (approximately 5% less than the total population).

This over-representation of the Roman Catholic adherents in the user group may, in part, account for the higher frequency of drug users attending parochial or private schools, a finding previously mentioned.

This item was hardly significant ($\chi^2 = 15.569$, df = 8, p = 0.049). Should those cells in which frequencies were small in number be collated with each other, then this variable would no longer be even marginally significant.

SUMMARY

Drug users were found to be more often absent from the home in the evenings. They also reported more absence from school and perceived themselves as receiving lower grades in comparison to non-users. They were more often enrolled in parochial and private schools than were non-users.

Drug users also had a higher weekly income. They were predominantly males, and they reflected a more pessimistic outlook on life. Roman Catholic youths and those not attending church were over-represented in the sample of drug users.

CHAPTER V

SUMMARY, FINDINGS, IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

SUMMARY, FINDINGS

Drug users have been characterized as holding to the "hang loose ethic" (Simmons and Winograd, 1966). Implied in this definition is an attitude described as anti-establishment. This attitude is behaviorally expressed in a questioning of the cornerstones of conventional society and a repudiation of some of its customs, such as, civil obedience, marriage, occupational stability.

An anomalous situation appears to occur when a drug user is affiliated to a traditional establishment of the society, namely the church. Research has found that they are characteristically anti-religious or agnostic (Johnson, 1972; Hughes 1971; Blum 1969a). Hardly any research seems to exist related to drug users who are members of a church. This research was, therefore, interested in determining the values, attitudes, concerns and beliefs of those who were drug users as compared to non-users of drugs, both groups being adherents of the institution. Do such persons display similar tendencies or characteristics even though they belong to a church? In simpler terms, do church youth using drugs exhibit more of an "anti-establishment" stance as compared to

similar youth not using drugs? On the evidence presented in the research, one would have to assume a positive response to the query unless or until it can be proven otherwise.

A sample of 124 drug users was chosen from a larger population of 7050 youth who were members of the major religious denominations. The youth had been surveyed by the Youth Research Centre of Minneapolis, Minnesota in 1970.

Drug users were defined as those who used alcohol one or more times per week, had experienced inebriation, and had used marijuana, LSD, speed or narcotics frequently. Thus, the definition included use of both alcohol and "street drugs" on a regular basis.

A contrasting group of 121 non-users of drugs was chosen from the same parent population of church related youths. The two groups were then compared and contrasted on data obtained by means of self report.

The data were originally gathered by means of two booklets which contained 420 items. Booklet 1, titled "Myself and My View of the World Around Me", contained 220 items which assess the perspectives and concerns of youth, and also elicit some biographical data. Booklet 2, titled "My Values and Beliefs", measured the subjects' values and beliefs and solicited some biographical data.

From the 420 items 25 scales which are highly homogeneous and factorially independent were developed. These scales included 280 of the original 420 items.

The scales were classified into four areas: (1) Concern Scales, (2) Values and Belief Scales, (3) Perception Scales and (4) Frankness Scales.

Of the 10 Concern Scales, five proved capable of differentiating between the groups, with drug users expressing higher degrees of concern. These concerns were about family pressures (eg. separation or divorce, family illness, unemployment), and parent-child relationships (eg. mutual trust, discipline). Users more often expressed concerns that their parents did not trust them sufficiently and that they did not grant them the desired independence. Related to this matter, users more often perceived themselves to be members of families in which disciplinary practices were either too strict or very lax. Either extreme appears to reflect a lack of mutuality between parent and child.

Drug users were found to be less interested in societal customs and expectations than were non-users. They were found to reflect more permissive attitudes toward societal mores and customs; less concerned about societal expectations upon themselves. These findings are reflective of the anti-establishment attitude said to characterize drug users (Blum, 1969a; Hughes, 1971; Simmons and Winograd, 1966).

The findings on these Concern Scales suggest that drug users' familial relations are not as satisfactory or fulfilling as are those for non-users. They appear to perceive less positive interaction amongst its members. Such perceptions seem to lessen feelings of mutuality and the adolescent drug users appear to be

more aloof from their families. This lack of mutuality in the home, and the consequent aloofness from it, appears to be extended into the social order as evidenced in the greater degree of disinterest users exhibit regarding societal customs and institutions.

Nine of the 11 Belief and Value Scales effectively differentiated the two groups. Drug users reflected a more positive attitude toward change in society; they attached less significance to values such as moral responsibility and social involvement. Hence, they reflected more individualistic and solipsistic values than did non-users.

In regard to religious attitudes, users expressed less orthodox beliefs than did non-users, although both groups appeared to value spiritual or mystical experiences equally. Users' religious confession could be regarded as more anthropomorphic than non-users. As well, they were also less observant in practices of personal piety such as prayer, church attendance, and Bible study.

Drug users were also found to be less interested and involved in the school as well as the church. They were absent more often from school; they perceived themselves as receiving lower grades than did non-users. They more often were enrolled in a parochial or private school than were non-users.

All three Perception Scales gave significant measures of difference between the two groups. Drug users perceived their families in a less favourable light than did non-users; eg. as being less involved in the needs of others. Users were also more skeptical about the salutary effect of their own families upon themselves.

They also perceived their youth groups and their congregations more negatively; eg. as being less helpful in meeting their own needs as well as community needs.

Overall, the Perception Scales suggest that drug users have more negative perceptions of other people and other institutions than do non-users.

The Validity Scale, which is a measure of honesty in responding, did not give significant difference between the two groups. One could, therefore, assume that the respondents in the two groups were equally willing to answer the various scales.

In relationship to the selected biographical items, drug users were found to be predominantly male, having higher weekly income and being more absent from the home in the evenings. Also, they expressed a more pessimistic outlook on life, and they had considered suicide more often.

The findings ennumerated above would lead one to conclude that church related youths, who are also drug users, could be characteristically described as adhering to a "hang loose ethic" when compared to non-users from the same population.

Thus the hypothesized anomolous situation between drug use and church affiliation does not exist. Drug users studied without respect to church affiliation, hold very similar values, attitudes and beliefs.

One must, therefore, conclude that religious affiliation is not a primary variable in forming the values and attitudes of drug users.

IMPLICATIONS FOR COUNSELLING

Drug users, as defined by this research, give evidence of being more negative about receiving help from either the school or church. This attitude would interfere with any counsel which either institution would proffer. Thus it would appear that these negative evaluations would have to be ameliorated through fostering a climate of trust before effective counsel could occur. A defensive posture vis-a-vis their negative evaluations of these institutions would tend to exacerbate the situation.

With regard to counselling, evidence would suggest that use of drugs is symptomatic of disturbances in parent-child relationships. Hence, counselling would need to extend beyond that of drug using behavior to an exploration of familial dynamics. The use of drugs may be a coping behavior which is necessary for the user in light of his circumstances. For this reason, it may be essential for change in his circumstances to occur before any change will be effected in the subject's drug use.

Clergy and others functioning within the religious institutions need to be cognizant and accepting of the skepticism and agnosticism which the drug using youth express while at the same time appreciating the need for acceptance and mutuality which they evidence. This research has found that regardless of users' negative attitude toward the institution and the members within it, they nonetheless have needs for spiritual fulfillment. It would appear that approach to these individuals must involve an acceptance of their belief systems without attempting to place the institutions' values upon them.

SUGGESTIONS FOR FURTHER RESEARCH

This research could not attempt to establish causal relationships regarding drug use. The findings should, therefore, only be interpreted in terms of associations or temporal relationships.

Several attitudinal variables have been suggested by this research as worthy of further study. The subjects' perception of parental regard appears to be a characteristic closely associated with drug use. Research should be undertaken with regard to this interaction to determine whether it is the subjects' perceptions of parental attitudes, or whether it is in fact lack of parental trust which is the factor which is operative. Such research would need to research not only parental attitudes, but also observe the operative behavior between parent and child for variables which are indicative of a trusting relationship; eg. independence granting behaviors, mutual sharing of tasks and ideas.

In this same vein it would also be instructive to research actual practices of child rearing in order to assess their relationship to drug use. This research has found that drug users more often perceive their parents at the two extremes of child rearing, namely, either too strict or too lax. Research should be undertaken to assess whether the perception of parental practices of child rearing is the significant variable, or whether the perception is in fact based on the actual state of affairs in the drug users' families.

Another area of research suggested by this research is the relationship of type of school to drug use. Private and parochial school enrollment was found to be positively associated with drug use. The question is what factors are operative to produce this relationship? Are these schools chosen by the parents as places to send their children because they are having difficulty with them, evidenced in their drug use, or are the schools providing a milieu conducive to the development of a drug culture? In simple terms are such places reform schools or havens?

Another area of research suggested by this study is related to interpersonal relationships. Drug users were found to perceive their families, the members of their youth group and the adults in their church in more negative terms than did non-users. Are these more negative attitudes a projection of an unresolved inner hostility or do they reflect a more negative evaluation of drug users by others? Or could these negative feelings be a consequence of more fundamental psychological disorder? Bowlby (1969) has postulated that infants unable to make satisfactory maternal attachments during the initial $2\frac{1}{2}$-3 years of life, have great difficulty establishing good object relationships later in life. Are the negative perceptions of others by drug users, as related above, expressive of inadequate development in attachment behavior?

Research specific to drug type could also be undertaken using a single definition. However, they could also be studied according to types of drug users, for example, alcohol users, marijuana users, heroin users and so on. Differential characteristics relative to the various groups could then be ascertained.

BIBLIOGRAPHY

Archibald, H.D. A response to the drug age. In E. Whitney (Ed.). World Dialogue on Alcohol and Drug Dependence. Boston: Beacon Press, 1970.

Bakal, D.A. Trends in drug use among rural students in Alberta: 1971-1974. Calgary: University of Calgary, Final Report, Oct. 1974.

Barnette, H.H. The Drug Crisis and the Church. Philadelphia: Westminister Press, 1971.

Becker, H.S. History, culture and subjective experience: An exploration of the social bases of drug induced experiences. Journal of Health and Social Behavior, 1967, 8(3), 163-176.

Bennett, J.C., & Demos, G.D. Drug Abuse and What We Can Do About It. Springfield, Ill: Charles C. Thomas, 1970.

Blum, R.H., & Associates. Drugs I: Society and Drugs. San Francisco: Jossey-Bass Inc., 1969. (a)

Blum, R.H., & Associates. Drugs II: Students and Drugs. San Francisco: Jossey-Bass Inc., 1969. (b)

Blum, R.H., & Associates. Horatio Alger's Children. San Francisco: Jossey-Bass, 1972.

Bogg, R.A., & Hughes, W.T. Correlates of marijuana usage at a Canadian technological institute. International Journal of the Addictions, 1973, 8(3)

Bogg, R.A. et al., Drug dependence in Michigan, A study of attitudes and actions of the young people of Michigan. Michigan Department of Health, April, 1969

Bowlby, J. Attachment and loss (Vol. 1). New York: Basic Books, 1969

Brown, C., & Savage, C. (Eds.). The Drug Abuse Controversy. Baltimore: National Educational Consultants, Inc., 1971.

Carman, R.S. Drug use and personal values of high school students. International Journal of the Addictions, 1973, 8(4), 733-739.

Carney, P.A., Timms, M.W.H., & Stevenson, R.O. The social and psychological background of young drug abusers in Dublin. British Journal of the Addictions, 1972, 67, 199-201

Chein, I.E., Gerard, D.L., Lee, R.S., Rosenfeld, E., & Wilner, D.M. The Road to H. New York: Basic Books, 1964.

Cluskey, W.R., Klan, A.W., & Krasner, W. Drug Trip Abroad: American Refugees in Amsterdam and London. Philadelphia: Univ. of Penn. Press, 1972.

Cockett, R. Drug Abuse and Personality in Young Offenders. London: Butterworth, 1971.

Cox, C., & Smart, R.G. Social and psychological aspects of speed use. International Journal of the Addictions, 1972, 7(2), 201-217.

Davis, F.J. Social problems: Enduring major issues and social change. New York: Free Press, 1970.

Edmonton Public School Board. Drug report 1971. Drug survey committee, 1971.

Edmonton Journal, Andrew Snaddon, (Ed.), Edmonton, Alberta, June 18, 1974.

Fort, J. Heroin addiction among young men. Psychiatry, 1954, 17, 251-259.

Fort, J. Marijuana: Drugs, trivia and the new Barbarians. In C. Brown & C. Savage, The Drug Abuse Controversy. Baltimore: National Educational Consultants, Inc., 1971.

Fox, E.E. A life orientation scale: Correlates of biophilia and necrophilia. Doctoral dissertation, University of Alberta, 1969.

Gerard, D.L., & Kornetsky, C. Adolescent opiate addiction--A case study. Psychiatric Quarterly, 1954, 28, 367-380.

Gilbert, J.G. & Lombardi, D.N. Personality characteristics of of young male narcotic addicts. Journal of Consulting Psychology, 1967, 31(5), 536-538.

Girdano, D.D., & Girdano, D.A. Drugs--A Factual Account. Don Mills, Ontario: Addison-Wesley Publishing Co., 1973.

Goode, E. Multiple drug use among marijuana smokers. Social Problems, Summer, 1969.

Goode, E. The Marijuana Smokers. New York: Basic Books, 1970.

Goode, E. Drugs in American Society. Toronto: Random House, 1972.

Gormely, S. Drugs (and the Canadian Scene). Toronto: Pagurian Press, 1970.

Green, M.G. Adolescent Drug Users & Non-Users: A Differential Analyses of Personality Correlates. (Doctoral dissertation, St. John's University, 1971) Dissertation Abstracts International, 1971, 71-21, 720.

Halleck, S.L. Psychiatry and the Dilemma of Crime. New York: Harper and Row, 1967.

Healy, P.F., & Manak, J.P. (Eds.). Drug Dependence and Abuse Resource Book. Chicago: National District Attorney's Association, 1971.

Heller, M.E., & Mordhoff, A.M. Personality attributes of the young nonaddicted drug abuser. The International Journal of the Addictions, 1972, 7(1), 65-72.

Hemsing, E.D. (Ed.). Children and Drugs, Washington, D.C.: Association for Childhood Education International, 1972.

Hogan, R., Mankin, D., Conway, J., & Fox, S. Personality Correlates of underground marijuana use. Journal of Consulting and Clinical Psychology, 1970, 35(1), 58-63.

Holloran, D.P. The personality characteristics of middle and upper middle class adolescent drug abusers. (Doctoral dissertation, Arizona State University, 1972) Dissertation Abstracts International, 72-23, 169.

Horman, R.E. Alienation and student drug use. International Journal of the Addictions, 1973, 8(2), 325-331.

Houston, J. Social issues in psychedelic drug use. In C. Brown & C. Savage, The Drug Abuse Controversy.

Hughes, J.W. Student drug use and the hang-loose ethic. Unpublished Masters thesis, University of Alberta, 1971.

Johnson, B. Social Determinants of the Use of Dangerous Drugs by College Students.

Keniston, K. The Uncommitted: Alienated Youth in American Society. New York: Harcourt, 1965.

Kolansky, H., & Moore, W.T. Effects of marijuana on adolescents and young adults. The Journal of the American Medical Association, 1971, 216, 486-492.

La Barre, W. The Peyote Cult. Hamden, Conneticut: The Shoe String Press, 1964.

LeDain, G. (Chairman) Interim Report of the Commission of Inquiry Into the Non-Medical Use of Drugs. Department of National Health & Welfare, Ottawa: Queen's Printer for Canada, 1970.

LeDain, G. (Chairman) Final Report of the Commission of Inquiry Into the Non-Medical Use of Drugs. Department of National Health & Welfare, Ottawa: Information Canada, 1973.

Lennard, H.L. et al. Mystification and Drug Use. San Francisco: Jossey-Bass, 1971.

Lipinski, E., & Lipinski, B.G. Motivational factors in psychological drug use by male college students. Journal of the American College of Health Associations, 1967, 16(2), 145-149.

Longdon, W.H., Methedrine use in young women--Some findings. Canada's Mental Health, 1973, 21(6), 8-9.

Louria, D.B. Parents, teachers and community. In E.D. Hemsing, Children and Drugs. Washington: Association for Childhood Education International, 1972.

McCord, W. & McCord, J. The Psychopath: An Essay on the Criminal Mind. Princeton, N.J.: Van Nostrand, 1964.

McGlothlin, W.H., & West, L.J. The marijuana problem: An overview. The American Journal of Psychiatry, 1968, 125: 370-378.

Mead, G.H., Mind, Self and Society. London: University of Toronto Press, 1934.

Merton, R. Social Theory and Social Structure. New York: The Free Press, 1957.

Mosier, C. Machine methods of scaling by reciprocal averages. Proceedings of the Research Forum, International Business Machines Corporation, 1946.

Nelson, T.M., & Sinha, B. (Eds.). Counter Measures for Alcoholism and Drug Abuse. Edmonton: Department of Psychology, University of Alberta, 1972.

Nelson, T.M., Furstenan, P., & Sveen, M. Drug dependence in Edmonton, Alberta. In T.M. Nelson & B. Sinha (Eds.), Counter Measures for Alcoholism and Drug Abuse. Edmonton: Department of Psychology, University of Alberta, 1972.

Nyswander, M. The Drug Addict As a Patient. New York: Greene, 1956.

Olson, W.M., & Sustruk, C. Home background and attitude of high school students towards nonmedical use of drugs. In T.M. Nelson & B. Sinha (Eds.), Counter Measures for Alcoholism and Drug Abuse. Edmonton: Department of Psychology, University of Alberta, 1972.

Pearlman, S. Drug use and experience in an urban college population. American Journal of Orthopsychiatry, 38, 503-514, 1968.

Perry, H.J. Patterns of psychotropic drug use among American adults. Journal of Drug Issues, 1968, 1, 269-273.

Pugh, G. Personaltiy correlates of culpable and non-culpable alcoholics. In T.M. Nelson & B. Sinha (Eds.), Counter Measures for Alcoholism and Drug Abuse. Edmonton: Department of Psychology, University of Alberta, 1972.

Riggs, D.E. Students and Drug Use: A Study of Personality Characteristics and Extent of Drug Using Behavior. Unpublished Master's thesis, University of Alberta, 1971.

Rogers, J.M. Drug abuse--Just what the doctor ordered. Psychology Today, 1971, 5, 16-18.

Rozak, T. The Making of a Counter Culture. Garden City, N.J.: Doubleday, 1969.

Seldin, N.E. The family of the addict: A review of the literature. The International Journal of the Addictions, 1972, 7(1), 97-107.

Sinha, B.K. Perceived locus of control and autokinetic movement in alcoholics and drug addicts. In T. Nelson & B. Sinha (Eds.), Counter Measures for Alcoholism and Drug Abuse, Department of Psychology, University of Alberta, 1972.

Simmons, J.L., & Winograd, B. It's happening: A portrait of the youth scene today. Santa Barbara, California: Marc-Laird Publishing, 1966.

Smart, R.G., & Fejer, D. Illicit LSD users: Their social backgrounds, drug use and psychopathology. Journal of Health and Social Behavior, 1969, 10, 297-307.

Smart, R.G., Fejer, D., & White, J. The Extent of Drug Use in Metropolitan Toronto Schools: A study of Changes from 1968-1970. Toronto: The Addiction Research Foundation of Ontario, 1970.

Smart, R.G., & Whitehead, P.C. A typology of high school drug use: Medicinal usage, mood modification and tripping. International Journal of the Addictions, 1972, 7(4), 735-738.

Smart, R.G. & Fejer, D. Changes in drug use in Toronto high school students between 1972 and 1974. Project J 183, Substudy No. 631. Toronto: Addiction Research Foundation, 1974.

Strommen, M.P. & Gupta, R.K. Manual for youth research survey. Sections 1-4. Minneapolis: Youth Research Center, NIMH Project #16460, 1971.

Suchman, E.A. The "hang loose" ethic and the spirit of drug use. Journal of Health & Social Behavior, 1968, 9, 146-155.

Szasz, T. The ethics of addiction. In Brown and Savage (Eds.) The drug abuse controversy. Baltimore: National Educational Consultants, Inc., 1971.

Unwin, J.R. Dissident Youth. Canada's Mental Health, March-April, 1969, 17, 4.

Whitehead, P.C. Drug use in our schools: Fact or fiction? Department of National Health & Welfare, 1969, 552-21-3.

Whitehead, P.C. The incidence of drug use among Halifax adolescents. Department of National Health & Welfare, 1969, 552-21-3.

Willis, J. Addicts--Drugs & Alcohol Re-Examined. Bath, England: Pitman Publishing, 1973.

World Health Organization, Expert committee on Addiction producing drugs. WHO Technical Report Series. Geneva: 273 1964.

Wozny, J.R. Psychological and sociological correlates of use and non use of marijuana. Unpublished master's thesis, University of Alberta, 1971.

Zinberg, N., & Robertson, J.A. Drugs and the Public. New York: Simon and Shuster, 1972.

APPENDIX A

RECIPROCAL AVERAGES METHOD

The previous paragraph gives the reasons why a cluster analysis of the items was not carried out initially. This conclusion was reached with some reluctance, for it had been hoped that an empirical method of grouping items could be found that would yield categories of greater diagnostic and dynamic significance. A compromise method, however, was found in an adaptation of the reciprocal averages method as programed by Baker (1957) for the 1103 Univac Scientific Computer. Given below is a brief description of the reciprocal averages method and the way the items were classified.

The process of reciprocal averages is essentially a means of determining the extent to which a group of supposedly related items actually form a scale. It provides a means of quantifying the responses to an instrument by the information supplied by the sample rather than an outside criterion. It uses an interative procedure which yields a set of optimum weights for each item. These weights are then used to obtain a total weighted score for each person.

The values of this procedure are summarized as follows by Mosier (1946): (1) The reliability of each item and the internal consistency of the weighted inventory are maximized; (2) the correlation between item and total score is maximized, and the product moment correlation coefficient becomes identical with the correlation ratio; (3) the relative variance of the distribution of scores (coefficient of variation) is maximized; (4) the relative variance of item scores within a single case is minimized; (5) the correlation between an item and total score is proportional to the standard deviation of the item weights for that item; (6) questions which bear no relation to the total score variable are automatically weighted so that they exert no effect on the scoring.

In the application of the reciprocal averages method, an *a priori* weight is assigned to each item response as a first approximation with this weight adjusted in each successive iteration. The successive weights assigned an item are proportional to the mean total score (based on the previous weights) for the subgroup of cases giving to that particular item responses. The resulting pattern of weights provides the following information: (1) If the weights assigned to each response for an item are equal, then the item does not correlate with the total score for that scale; (2) if the weights indicate a range of values, then the item correlates with the scale in direct proportion to their standard deviation.

The program developed by Baker differs from the one proposed by Mosier in the method used to classify the mean total scores and to determine the weights. Baker's program divides the range of mean total scores into seven categories for assigning seven weights. Mosier's program divides the difference between a mean total score and the mean of all total scores by three tenths of the standard deviation of the total scores. The net result is approximately the same for the two methods, provided the curve is neither bipolar nor sharply skewed.